STIC Search Report
EIC 2800

USPTO

STIC Database Tracking Number: 101833

TO: Wasseem Hamdan **Location: CP4 8A05** **Art Unit : 2854** **Thursday, August 21, 2003** **Case Serial Number: 10/089631**	**From: Irina Speckhard** **Location: EIC 2800** **CP4-9C18** **Phone: 308-6559** **irina.speckhard@uspto.gov**

Search Notes

Examiner Hamdan,

Please find attached first-pass prior-art search results from the patent and non-patent abstract databases. The results were based on claims and statements of technical problems and solutions. Tagged records might be worth your review as well as the rest of the references provided.

If you need further searching or have questions or comments, please let me know.

Thank you,

Irina Speckhard

sira
Search and Information Resources Administration

6425 101833

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 8/27/01 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, CP4-9C18, 306-5429.

Date 8/19/03 Serial # 10/089,631 Priority Application Date 11/07/99

Your Name WASSEEM HAMDAN Examiner # 75940

AU 2854 Phone 305 3968 Room 8A05

In what format would you like your results? Paper is the default. (PAPER) DISK EMAIL

If submitting more than one search, please prioritize in order of need.

Th EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case?
Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: _____

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements. _____

What types of references would you like? Please checkmark:

Primary Refs ___ Nonpatent Literature ___ Other _____
Secondary Refs ___ Foreign Patents ___
Teaching Refs ___

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

printer with with the following structure:
a) a feed printing section
b) second " "
c) rotatable element

Staff Use Only		Type of Search		Vendors	
Searcher:	Jeffharrison	Structure (#)		STN	
Searcher Phone:		Bibliographic	✓	Dialog	✓
Searcher Location:	STIC-EIC2800, CP4-9C18	Litigation		Questel/Orbit	
Date Searcher Picked Up:	8/20/03	Fulltext		Lexis-Nexis	
Date Completed:	8/21/03	Patent Family		WWW/Internet	
Searcher Prep/Rev Time:	200	Other		Other	
Online Time:	40				

21aug03 08:15:00 User267149 Session D930.1

SYSTEM:OS - DIALOG OneSearch
File 2:INSPEC 1969-2003/Aug W2
(c) 2003 Institution of Electrical Engineers
*File 2: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.
File 6:NTIS 1964-2003/Aug W3
(c) 2003 NTIS, Intl Cpyrght All Rights Res
*File 6: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.
File 8:Ei Compendex(R) 1970-2003/Aug W2
(c) 2003 Elsevier Eng. Info. Inc.
*File 8: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.
File 34:SciSearch(R) Cited Ref Sci 1990-2003/Aug W3
(c) 2003 Inst for Sci Info
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info
File 35:Dissertation Abs Online 1861-2003/Jul
(c) 2003 ProQuest Info&Learning
File 65:Inside Conferences 1993-2003/Aug W3
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File 94:JICST-EPlus 1985-2003/Aug W3
(c)2003 Japan Science and Tech Corp(JST)
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Jul
(c) 2003 The HW Wilson Co.
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(c) 2003 INIST/CNRS
File 305:Analytical Abstracts 1980-2003/Jul W4
(c) 2003 Royal Soc Chemistry
*File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.
File 315:ChemEng & Biotec Abs 1970-2003/Jul
(c) 2003 DECHEMA
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200353
(c) 2003 Thomson Derwent
File 347:JAPIO Oct 1976-2003/Apr(Updated 030804)
(c) 2003 JPO & JAPIO
*File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.
File 344:Chinese Patents Abs Aug 1985-2003/Mar
(c) 2003 European Patent Office
File 371:French Patents 1961-2002/BOPI 200209
(c) 2002 INPI. All rts. reserv.
*File 371: This file is not currently updating. The last update is 200209.

Set	Items	Description
S1	270	TANDEM(3N)PRINT????????
S2	1082251	PRINT????????
S3	1082251	S1:S2
S4	271004	(SUBSTRATE? ? OR PAPER? ? OR SHEET? ? OR DOCUMENT? ?)(3N)(POSITION?????? OR CORRECT?????? OR TRANSFER????? OR MOUNT?????? OR ALLIGN?????? OR PLACEMENT? ? OR EDGE? ? OR ANGULAR?? OR ANGLE??)
S5	270077	(FIRST OR ONE OR TWO OR SECOND)(3N)(SECTION? ? OR STATION? ?)
S6	13192	PRINT???????(3N)(SECTION? ? OR STATION? ?)
S7	281910	S5:S6
S8	331726	(ROTATAB???????? OR ROTAT??????? OR MOVE??? OR MOVING OR MOVAB??????? OR TURN???????)(3N)(ELEMENT? ? OR PART? ? OR PORTION? ? OR SEGMENT? ?)
S9	168660	ROTAT????????(3N)(RATE?? OR PACE?? OR SPEED???)
S10	17325	(FLEX????? OR MOVAB?????? OR BEND???????)(3N)STRIP????
S11	509431	S8:S10
S12	223652	(SENS?????? OR MEASUR????????)(3N)(SUBSTRATE? ? OR POSITION???????)
S13	963695	CONTROLLER? ?
S14	50250	S3 AND S4
S15	1300	S14 AND S7
S16	59	S15 AND S11
S17	2	S16 AND S12
S18	2	RD (unique items)
S19	57	S16 NOT S17
S20	3	S19 AND S13
S21	3	RD (unique items)
S22	54	S19 NOT S20
S23	1	S22 AND S1
S24	53	S22 NOT S23
S25	53	S24 AND S2
S26	26	S25 AND S5
S27	26	RD (unique items)
S28	10	S27 AND S6
S29	16	S27 NOT S28
S30	13	S29 AND S8
S31	3	S29 NOT S30
S32	3	RD (unique items)
S33	27	S25 NOT S26
S34	20	S33 AND S8
S35	0	S34 AND S9
S36	0	S34 AND S10
S37	20	RD S34 (unique items)
S38	0	S37 AND S12
S39	0	S37 AND S13
S40	20	RD S37 (unique items)

?

18/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004837790
WPI Acc No: 1986-341131/198652
XRPX Acc No: N86-254556
Paper feeding and registering appts. - has paper-engaging device, paper-arresting and aligning device, and detent-activating device
Patent Assignee: CONTINUOUS GRAPHICS INC (CONT-N); CONTINUOUS GRAPHICS (CONT-N)
Inventor: MCANELLY J
Number of Countries: 008 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 206838	A	19861230	EP 86304989	A	19860626	198652	B
US 4747347	A	19880531	US 8777022	A	19870629	198824	
EP 206838	B1	19920513	EP 86304989	A	19860626	199220	
DE 3685267	G	19920617	DE 3685267	A	19860626	199226	
			EP 86304989	A	19860626		

Priority Applications (No Type Date): US 85801733 A 19851126; US 85749313 A 19850626
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 206838	A	E	25		
Designated States (Regional): CH DE FR GB IT LI NL					
EP 206838	B1	E	16	B41F-013/04	
Designated States (Regional): CH DE FR GB IT LI NL					
DE 3685267	G			B41F-013/04	Based on patent EP 206838

Abstract (Basic): EP 206838 B
A registration station is upstream of the offset %printing% press, and a paper feeding station is downstream. In the press, a blanket cylinder and impression cylinder turn at the same rate as the feeder shaft in the paper feeding station. An adjustable segment on the shaft cooperates with the draw roller for primary feeding operation. Continuous engagement with the paper is maintained whilst discontinuous feeding of the paper by the feeder is allowed.
A wedge-shaped finger of a registration solenoid (84) acts with a disc on an indexing shaft. The disc is linked to an endless pin belt which engages pin holes in the %paper% for %positioning% the %paper% at one of a number of predetermined positions.
ADVANTAGE - Apparatus can be designed as attachment for ready incorporation into existing %printing% presses such as high speed offset %printing% presses. (25pp Dwg.No.0/10)
Abstract (Equivalent): EP 206838 B
A %printing% press (10) adapted to discontinuously feed continuous form paper (16) and to %print% said paper at a %printing% %station% thereof, said press being provided with: (a) registration means (66,80,86), located at a registration station (12) upstream of said %printing% %station%, for maintaining the continuous form paper (16) in proper registry; (b) sensing means (114, 116) for detecting each time a predetermined form length of said paper is fed forwards through the press; and (c) electrical control means (118, 84), in operative association with said sensing means and with said registration means, effective to control activation of said registration means (66,80,86)

and thereby cause the latter to index the continuous form paper (16) and to arrest further movement thereof each time the sensing means (114, 116) detects a feed of a said predetermined form length of the paper, characterised in that (i) the %printing% press (10) is of the type having a blanket cylinder (18) carrying a %printing% blanket (22) which co-operates with an opposed impression cylinder (20) to effect %printing% and also to discontinuously feed the paper through the press, in that (ii) the co-operation between said blanket-carrying blanket cylinder and said opposed impression cylinder provides the sole feed means for feeding the continuous form paper (16), the circumferential length of the %printing% blanket (22) being matched to said predetermined form length of the paper and said registration means (66,80, 86) being operable without any paper moving function other than that of selectively moving the paper backwards or forwards to adjust its position during indexing, and that (iii) the sensing means (114, 116) is operatively associated with said blanket cylinder (18).i

Abstract (Equivalent): US 4747347 A

A paper feeding station is downstream of the press and a separate registration station is upstream of the press. The feeding station has an adjustable %rotating% circumferential %segment%, driven off the press, cooperating with a draw roller to intermittently engage the continuous form paper, draw a predetermined increment through the press and then disengage from the paper. The registration station maintains continuous engagement with the paper by means of a freely rotatable, endless pin belt which engages the pin holes of the paper and individually registers each increment of paper to the press while the paper is disengaged by the paper feeder.

A rotating disc, operatively connected to the pin belt, includes several windows for receiving a solenoid activated, wedge-shaped finger which arrests and %positions% the disc and %paper% in one of several predetermined %positions%. A %sensor% associated with the paper feeder detects when the paper is engaged or disengaged and generates a signal to the solenoid.

ADVANTAGE - Low mass, low inertia registration system successively index each document without stressing distorting or breaking pin holes or perforations in continuous form paper. (12pp)e

18/3,AB/2 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

01467264
COPYING MACHINE

PUB. NO.: 59-178864 [JP 59178864 A]
PUBLISHED: October 11, 1984 (19841011)
INVENTOR(s): MIYAGI TAKESHI
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 58-052744 [JP 8352744]
FILED: March 30, 1983 (19830330)
JOURNAL: Section: E, Section No. 296, Vol. 09, No. 35, Pg. 139, February 14, 1985 (19850214)

ABSTRACT

PURPOSE: To improve the accuracy of detection of a moving %position% by %measuring% an arrival time from a stop %position% detecting %sensor% HP to an image tip detecting sensor OHP in moving an original image to the rear part of a copying paper sheet by %moving% a %part% of an original in the subscanning direction.

CONSTITUTION: A noticed part PX of an original GK is moved to a desired %position% on a copy %paper% sheet P. X direction is taken as the subscanning direction and the Y direction is taken as the main scanning direction. A reference point of the original GK exists in the left end and corresponds to the position of the image tip detecting sensor OHP of a reader section. In figure, tp is a time width corresponding to an image position moving distance and t(sub 1) is a time while a scanning unit moves between the sensors HP and OHP. The time t(sub 1), however, is not constant because of the change in the speed of the scanning unit and the variation in the stop %position%. In order to %measure% accurately the time t(sub 1), the time t(sub 1) is measured by scanning the original with the same condition as that at copying. Thus, an offset is produced between the scanning start time of the scanning unit of the reader section and the %transfer% %paper% resist drive time of the %printer% %section% is produced by the time of t(sub p)+t(sub 1)=t(sub x) at the movement of the part PX, allowing to attain the accurate original movement.

21/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014676453
WPI Acc No: 2002-497157/200253
XRPX Acc No: N02-393721
Offset %printer% has spare %printing% %section% whose plate cylinder is %rotated% to %speed% of plate cylinder in main %printing% %section%, when plate cylinder of main %printing% %section% is detached
Patent Assignee: MITSUBISHI JUKOGYO KK (MITO)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2002166520	A	20020611	JP 2000363791	A	20001129	200253	B

Priority Applications (No Type Date): JP 2000363791 A 20001129
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2002166520	A		7	B41F-007/02	

Abstract (Basic): JP 2002166520 A
Abstract (Basic):
NOVELTY - The offset %printer% has a main %printing% %section% and a spare %printing% %section% (8) either of which is operated by a switching arrangement. The spare %printing% %section% has %controller% for rotating its plate cylinder (14) to the speed of plate cylinder of main %printing% %section% to transfer the data from the master plate (9) wound to the cylinder, to the paper (16) before the %paper% is %transferred% to drying section, when the plate cylinder of the main %printing% %section% is detached from the %printer%.
USE - Offset %printer%.
ADVANTAGE - An inexpensive and highly productive offset %printer% is obtained. %Printing% operation is performed without any halt. The productive efficiency is increased.
DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the structure of the offset %printer%. (Drawing includes non-English language text).
Spare %printing% %section% (8)
Master plate (9)
Plate cylinder (14)
Paper (16)
pp; 7 DwgNo 2/6

21/3,AB/2 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

06573597
%PRINTER%

PUB. NO.: 2000-159387 [JP 2000159387 A]
PUBLISHED: June 13, 2000 (20000613)
INVENTOR(s): ISOGAI YUTAKA
APPLICANT(s): SEIKO EPSON CORP
APPL. NO.: 10-332377 [JP 98332377]
FILED: November 24, 1998 (19981124)

ABSTRACT

PROBLEM TO BE SOLVED: To remove wrinkles by controlling the %rotating% %speed% of a heating roller, and extending and flattening a %printing% sheet on this side of a recording head.

SOLUTION: A %controller% conveys a %printing% %sheet% S to the %position% of a recording head at the required speed for a %printing% process, changes the speed of a drive section 40 based on the irregularity information from a wrinkle detection section, and corrects the speed of the drive section 40 based on the irregularity information from the wrinkle detection section. A wrinkle removal section is provided with a heating roller 81 and a backup roller 82 excited by a power supply P driven by the drive section 40 at a variable speed. The wrinkle removal %section% heats the %printing% sheet S on a conveyance path W between the rollers 81, 82, shifts the %printing% sheet S toward the recording head, and applies tension to the %printing% sheet S between it and a constant-speed roller 91. A detection roller 112 fitted to a rocking arm 111 is located on a conveyance base 92 into contact with the %printing% %sheet% S, the rotation %angle% of the rocking arm 111 due to irregularities of wrinkles is detected by an angle sensor 113 and can be reported to the %controller%.

21/3,AB/3 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

02012958
%PRINTING% PRESS

PUB. NO.: 61-227058 [JP 61227058 A]
PUBLISHED: October 09, 1986 (19861009)
INVENTOR(s): TAKAHASHI TAKEHIRO
APPLICANT(s): MITSUBISHI HEAVY IND LTD [000620] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 60-068481 [JP 8568481]
FILED: April 02, 1985 (19850402)
JOURNAL: Section: M, Section No. 567, Vol. 11, No. 71, Pg. 103, March 04, 1987 (19870304)

ABSTRACT

PURPOSE: To enable a pattern with a pitch changed to be continuously %printed%, by a system wherein %printing% cylinders are alternately arranged, and while a %printing% surface %printed% by the cylinder on one side is passed, the next %printing% timing is controlled.

CONSTITUTION: A paper 8 fed at a certain fixed velocity is %printed% by being passed through each of %printing% devices 12-17. The velocity and the feed quantity of the paper 8 are measured by a measuring device 18, and a signal from the device 18 is sent to %controllers% for variable-speed motors for driving %printing% cylinders 4a, 4a, 4a, 4b, 4b, 4b. By the function of the variable-speed motor %controller%, the cylinders 4a, 4b are rotated at the same velocity with the velocity of the paper 8 in a section Va. Next, a variable-%speed% section Xa, the %rotating% angle is so controlled that the cylinder 4a is rotated to a %printing% %position% in a predetermined %paper% feed quantity (a %section% Vb in which %printing% by the next cylinder 4b is conducted). Accordingly, since the cylinders 4a, 4b are alternately arranged and the speeds thereof are controlled, continuous %printing% can be easily performed.

23/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013913490
WPI Acc No: 2001-397703/200142
Related WPI Acc No: 2001-389757
XRPX Acc No: N01-293132
%Tandem% %printing% system with fine %paper%-%positioning% %correction% which can %print% information using two or more %printing% %stations% and pulleys to provide corrective displacement
Patent Assignee: INDIGO NV (INDI-N)
Inventor: LEWINTZ L; SAGI D; SHMAISER A
Number of Countries: 090 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200134397	A1	20010517	WO 99IL600	A	19991107	200142	B
AU 200010729	A	20010606	WO 99IL600	A	19991107	200152	
			AU 200010729	A	19991107		

Priority Applications (No Type Date): WO 99IL600 A 19991107
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200134397	A1	E	24	B41F-021/12	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200010729	A			B41F-021/12	Based on patent WO 200134397

Abstract (Basic): WO 200134397 A1
Abstract (Basic):
NOVELTY - %Printing% %stations% (11,13) comprise impression rollers (12,14) and associated %printing% engines (16,18) with intermediate transfer members (15,17) onto which an image is transferred before being %transferred% onto %paper% (40). A roller assembly (20) inverts and %transfers% the %paper% between the impression rollers and a correctional mechanism (30) comprises a tension roller (38) pressing against a %flexible% %strip% (26) according to movement of a drive shaft (46) driven by a stepper motor (42) according to a signal from a paper sensor (24) determining of a correction is required.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a multiple-engine %printer% and for a method of applying fine %positional% %correction% to a %substrate%.
USE - %Printing% various information using %two% or more %printing% %stations%.
ADVANTAGE - Accurate alignment of paper.
DESCRIPTION OF DRAWING(S) - The drawing is a schematic illustration of the %printer%
Impression rollers (12,14)
%Printing% %stations% (11,13)
%Printing% engines (16,18)
Roller assembly (20)
Correction mechanism (30)
Tension roller (38)

28/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014039341
WPI Acc No: 2001-523554/200158
XRPX Acc No: N01-388017
%Substrate% %transfer% device e.g. for %transference% of %printed% %substrates% by a movable gripper, is provided with contact-free pickup for holding the substrate without touching its surface
Patent Assignee: ORC MFG CO LTD (ORCO-N); ORC SEISAKUSHO KK (ORCS-N); ORC KK (ORCO-N)
Inventor: OKUGI Y
Number of Countries: 005 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 10063609	A1	20010705	DE 1063609	A	20001220	200158	B
JP 2001179673	A	20010703	JP 99364858	A	19991222	200158	
KR 2001067209	A	20010712	KR 200055428	A	20000921	200202	
US 6379103	B1	20020430	US 2000654566	A	20000901	200235	
TW 474888	A	20020201	TW 2000116422	A	20000815	200303	

Priority Applications (No Type Date): JP 99364858 A 19991222
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 10063609	A1		10	B65H-005/00	
JP 2001179673	A		9	B25J-015/06	
KR 2001067209	A			H05K-013/02	
US 6379103	B1			H01L-021/68	
TW 474888	A			B65H-005/00	

Abstract (Basic): DE 10063609 A1
Abstract (Basic):

NOVELTY - %Substrate% %transference% devices for carrying over a %printed% substrate from %one% %station% to another during the manufacturing process often fail to prevent e.g. unevenness or changes in shape of the substrate surface and thus require additional pre-alignment devices for lining up the %position% of the %substrate% on the retaining table with the masking pattern, leading to complication of the device design and the associated process. A substrate retaining device (20) with a contact-free pickup (30) for holding the substrate (W) without touching its surface, as well as a lifting mechanism (4) for lifting and lowering the contact-free pickup (30), are now provided in order to avoid such problems.

USE - For %transferring% %printed% %substrates% with a %movable% gripper forming %part% of an ultra-violet (UV) beam exposure device.

ADVANTAGE - The %substrate% %transfer% device %transfers% the %substrate% without contacting the substrate and requires no additional pre-alignment mechanism.

DESCRIPTION OF DRAWING(S) - A cross-sectional view of a %substrate% %transfer% device is given.

%Substrate% %transfer% device (1)
Roller element (2A)
Air-jet arrangement (5)
Gripper (10)
Frame (11)
Headers (12)

Bolts (13)
Substrate retainer device (20)
Bernoulli pickup (30)
Flange (31)
Air-cylinder (40)
Contact element (60)
pp; 10 DwgNo 1A/4

28/3,AB/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013935410
WPI Acc No: 2001-419624/200145
XRAM Acc No: C01-127047
XRPX Acc No: N01-310867
Apparatus for %printing% patterns on substrates without stencils, comprises moving spray head unit which travels between %printing% %station% across the moving substrate and setting frame for modification and servicing
Patent Assignee: ZIMMER MASCHBAU GMBH J (ZIMM-N)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 29980210	U1	20010705	DE 99U2080210	U	19991201	200145	B

Priority Applications (No Type Date): DE 99U2080210 U 19991201
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 29980210	U1		16	B05B-013/04	

Abstract (Basic): DE 29980210 U1
Abstract (Basic):
NOVELTY - An apparatus (1) for applying a pattern to a substrate (5), without a stencil, comprises a spray head carrier (22) which is a component %part% of a %moving% unit (3). It travels across the direction (B) of the substrate movement from a working position (I) where it applies a pattern to the %substrate% into a %position% (II) at the side where it is partially released for modification and servicing.
USE - The apparatus is for patterning substrates such as textile fabrics, carpets, films etc.
ADVANTAGE - The substrate is given a precise and high quality patterning, with high speeds of the order of 30 m/minute, and reduced down times for changes and servicing.
DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of the substrate patterning assembly.
%Printing% assembly (1)
%Printing% %station% (2)
Moving spray head unit (3)
Guide rail assembly (4)
Substrate (5)
Substrate support (11)
Cable chain (12)
Spray head carrier (22)
Guide rail (41)
Setting frame (43)
Catch trough (44)
Linking rails (411,421)
Substrate movement direction (B)
%Printing% %station% longitudinal line (T)
Working position (I)
Modification/servicing position (II)
pp; 16 DwgNo 1/4

28/3,AB/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010859693
WPI Acc No: 1996-356644/199636
XRPX Acc No: N96-300792
Paper discharge %section% for e.g. %printer% - includes two supports, one of which is slidable movable towards and away from the second, and rotatably movable between supportive and non-supportive positions
Patent Assignee: SEIKO EPSON CORP (SHIH)
Inventor: AKAHANE T; KASHIWABARA K; KOBAYASHI Y; KOTAKA T; SHIMOMURA M; TOMII T; YASUE T; YOKOYAMA K
Number of Countries: 005 Number of Patents: 020
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2297743	A	19960814	GB 962475	A	19960207	199636	B
DE 19605262	A1	19960814	DE 1005262	A	19960207	199638	

Priority Applications (No Type Date): JP 9554987 A 19950220; JP 9542433 A 19950207; JP 9542434 A 19950207; JP 9542435 A 19950207
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2297743	A		129	B65H-029/70	
DE 19605262	A1		58	B41J-013/10	
JP 8217261	A		19	B65H-001/04	
JP 8217305	A		15	B65H-029/20	
JP 8217314	A		18	B65H-031/20	
JP 8225225	A		13	B65H-031/20	
FR 2737861	A1			B41J-002/01	
FR 2742092	A1			B41J-002/01	Div ex application FR 961493
GB 2297743	B			B65H-029/70	
DE 19654913	A1			B41J-013/10	Div ex application DE 1005262 Div ex patent DE 19605262

Abstract (Basic): GB 2297743 A

The paper discharge %section% includes %two% support portions (81 and 82) which are mounted on the %printer% body and are spaced apart from each other. The supports support two portions of the bottom side of a piece of paper, discharged from the %printer%. One of the supports (82) is slidable towards and away from the second support (81).

A roller (83), mounted on the %printer% body, is positioned between the two supports, pushing down a central portion of a sheet of paper. The first support (82) is adapted to rotate between a first %position% supporting the %paper% and a second non-supportive position.

USE/ADVANTAGE - Readily supports, guides and discharges paper. Prevents ink on previous sheet from being smeared. Supports varying sizes of paper. Discharges paper even when warped. Has easy and reliable paper setting operation. Sliding operation is simple.

Dwg.2/39

Abstract (Equivalent): GB 2297743 B

A paper discharge %section% for a %printer% having a %printer% body, the discharge %section% comprising: a %first% support portion and a second support portion spaced apart from the first support portion,

the first support portion supporting a respective first bottom side portion of a sheet of paper discharged from the %printer% body and the second support portion supporting a respective second bottom side portion on an opposite side of a sheet of paper from the first bottom side portion at least the first support portion being a slidable support portion slidable in a first direction towards the second support portion and a second direction away from the second support portion; and a pushing down portion, positioned intermediate the first support portion and the second support portion, the pushing down portion pushing down an intermediate portion of a sheet of paper intermediate the first and second bottom side portion; the first support %portion% being adapted to %rotate% between a first position for supporting a first bottom side portion of a sheet of paper and at least a second position in which the support does not support the bottom side portion of a sheet of paper.

Dwg.1

28/3,AB/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007493957
WPI Acc No: 1988-127890/198819
XRPX Acc No: N88-097148
Variable %paper% %transfer% speed %printing% %section% of form %printer% - has %printing% unit comprising plate, blanket and impression cylinders, and cylinder change speed differential
Patent Assignee: FUJI KIKAN KOGYO CO LTD (FUJI-N); FUJI KIKAI KOGYO (FUJI-N); FUJI KIKAI KOGYO KK (FUJI-N)
Inventor: HANYU A; KAWANA F
Number of Countries: 007 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 267007	A	19880511	EP 87309727	A	19871103	198819	B
US 4785734	A	19881122	US 87114807	A	19871029	198849	
CA 1278219	C	19901227				199106	
EP 267007	B1	19940316	EP 87309727	A	19871103	199411	
DE 3789351	G	19940421	DE 3789351	A	19871103	199417	
			EP 87309727	A	19871103		

Priority Applications (No Type Date): JP 86263523 A 19861104; JP 86263522 A 19861104
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 267007	A	E	17		
Designated States (Regional): DE FR GB IT NL					
US 4785734	A		18		
EP 267007	B1	E	15	B41F-013/02	
Designated States (Regional): DE FR GB IT NL					
DE 3789351	G			B41F-013/02	Based on patent EP 267007

Abstract (Basic): EP 267007 A
The %printing% %section% has at least %one% %printing% unit (5) with a plate cylinder (6), a blanket cylinder (7) and an impression cylinder (8). A speed changing differential (23) is provided for changing the speed of the impression cylinder relative to the speeds of the blanket and plate cylinders.
The drive assembly comprises drive trains driving the plate cylinder and blanket cylinder. The speed changing differential is connected between the blanket cylinder and the impression cylinder. It can also be a harmonic drive and of a gear type.
USE/ADVANTAGE - For controlling %paper% %transfer% speed on form %printer% which carries out multi-colour %printing% on paper web to processing. %Paper% %transfer% speed can be varied according to thickness of paper.
Abstract (Equivalent): EP 267007 B
A form %printing% machine having a plurality of %printing% units (5) each comprising a plate cylinder (6), a blanket cylinder (7) and an impression cylinder (8) and drive means (11,12,13,23) to drive said cylinders (6,7,8) including speed differential means (23) for causing said impressing cylinders (8) to %rotate% at a predetermined %speed% difference relative to said plate cylinders (6) and blanket cylinders (7), characterised in that in each said %printing% unit, said drive

means has speed differential means (23) for the impression cylinder (8) thereof to %rotate% at a said %speed% difference relative to the plate cylinder (6) and blanket cylinder (7) thereof, the speed differential means (23) of the respective %printing% units being independently adjustable.

Dwg.1/9

Abstract (Equivalent): US 4785734 A

A series of %printing% units each comprise a plate cylinder, a blanket cylinder and an impression cylinder are arranged on a %printing% line to constitute the %printing% %section%. %First% and %second% drive shafts are driven by a motor as a drive source are provided to extend over all of the %printing% units.

The plate cylinder and the blanket cylinder of each %printing% unit are interlockingly connected to the first drive shaft and the impression cylinder being interlockingly connected to the second drive shaft. At the end of the second drive shaft on the side of the drive source, a speed change is provided for changing the %rotation% %speed% of the second drive shaft independently of the first drive shaft.

USE - For controlling %paper% %transfer% speed of a %printing% %section% of a form %printing% machine.

28/3,AB/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004703003
WPI Acc No: 1986-206345/198632
XRPX Acc No: N86-153961
Sheet turner for a small offset %printing% machine - has sheets conveyed between %printing% units by two endless conveyor mobius-band configured chains with grippers
Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC)
Inventor: JESCHKE W
Number of Countries: 003 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2170465	A	19860806	GB 861957	A	19860128	198632	B
DE 3503368	A	19860807	DE 3503368	A	19850201	198633	
US 4669715	A	19870602	US 85806707	A	19851209	198724	
DE 3503368	C	19871022				198742	
GB 2170465	B	19890111				198902	

Priority Applications (No Type Date): DE 3503368 A 19850201; DE 3444848 A 19841208

Abstract (Basic): GB 2170465 B
The two adjacent %printing% units (1,2) of a small offset %printing% machine for first-form and perfector %printing% are connected by a chain system provided with gripper bridges. The chain system conveying the at least one-side %printed% sheet from one %printing% unit to the other. The chain system consists of two endless conveyor chains, running parallel to each other and are connected with each other by the gripper bridges. The lower part (5) as well as the upper part (4) of the chain system is wound like a "Mobius band", so that the sheet transported e.g. by the lower %part% is %turned% about its longitudinal axis while being transported.
This sheet turner makes it possible to use similar %printing% plates, since the sheet is not tumbled, but turned during the turning process. The fact that both parts of the chain system run wound through180 deg. so that after one revolution the control mechanism of the gripper bridges always comes to lie on the same side. (Dwg.No.1/3)
Abstract (Equivalent): DE 3503368 C
An off-set %printing% machine has two sets of %printing% cylinders (1) and (2) arranged in tandem. The machines may be used for %printing% single copies or for continuous production of separate sheets.
One side of a sheet is %printed% at the %first% %station% and the %printed% %sheet% is %transferred% by a chain conveyor (4) to the %second% %printing% %station%. The chains of this chain conveyor are so arranged that the sheet is rotated through 180 deg. about the axis parallel to the direction of travel. Thus when the sheet passes through the %second% %printing% %station% it is %printed% on its second side.
USE - Offset %printing% of both sides of a sheet of paper. (6pp)i
Abstract (Equivalent): GB 2170465 B
A small offset %printing% machine provided with a sheet turner having a chain system which connects two adjacent %printing% units and which employes gripper bridges which convey sheets %printed% on at least one side from one %printing% unit to the next, and in so-doing,

turn the sheet, wherein both the upper part and the lower part of the chain system twist through 180 deg. between the pairs of chain wheels of the two adjacent %printing% units, and wherein, in each %printing% unit, one of the pairs of chain wheels is mounted fixedly on the shaft of the %printing% cylinder, whereby (in use of the %printing% machine) the gripper bridges of the chain system travel round together with the %printing% cylinders.

Abstract (Equivalent): US 4669715 A

A conveyor system has gripper bridges linking two adjacent small offset %printing% machines for transporting a sheet having at least one %printing% performed on it from one of the small offset %printing% machines to the other. The conveyor system is formed of two endless conveyor strands extending parallel to one another and being twisted in the form of a Mobius band.

One part of the conveyor system extends between pairs of sprockets. The other part of the conveyor system is located opposite the one part and extends rectilinearly. The sheet transported in the region of the one part of the conveyor system is thus turned around the longitudinal axis as it is being transported.

USE - A sheet turning device for small offset %printing% machines. (10pp)e

28/3,AB/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004640900
WPI Acc No: 1986-144243/198622
XRPX Acc No: N86-106755
Viewing frame for stack of photographic %prints% - has single %print% taken from stack and replaced on other side via spaced guides
Patent Assignee: ACKERET P (ACKE-I); LICINVEST AG (LICI)
Inventor: ACKERET P
Number of Countries: 020 Number of Patents: 018
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8603029	A	19860522	WO 85EP615	A	19851112	198622	B
AU 8652025	A	19860603				198633	
DE 3441488	A	19860821	DE 3441488	A	19841113	198635	
ZA 8508703	A	19860710				198644	
NO 8602817	A	19861013				198648	
EP 203155	A	19861203	EP 85906056	A	19860707	198649	
GB 2179925	A	19870318	GB 8616718	A	19851113	198711	
ES 8702289	A	19870316	ES 548823	A	19851113	198716	
JP 62500816	W	19870402				198719	
BR 8507048	A	19870310				198720	
DK 8603313	A	19860711				198723	
US 4759142	A	19880726	US 86897763	A	19860711	198832	
GB 2179925	B	19890405	GB 8516718	A	19851112	198914	
EP 203155	B	19890830	EP 85906056	A	19851112	198935	
DE 3572737	G	19891005				198941	
CA 1260263	A	19890926				198944	
US 4879825	A	19891114	US 88216153	A	19880707	199004	
US 4939860	A	19900710	US 89334237	A	19890405	199030	

Priority Applications (No Type Date): DE 3441488 A 19841113
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8603029	A	G	105		
Designated States (National): AU BR DK GB JP KR NO US					
Designated States (Regional): AT BE CH DE FR GB IT NL SE					
EP 203155	A	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					
EP 203155	B	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					

Abstract (Basic): WO 8603029 A
The stack of photographic %prints% is held in a two-part rectangular frame, which can be pulled out and pushed back to move one %print% from one side of the stack to the other. The %print% is guided between pick-up guides, whose spacing is slightly more than the thickness of one %print% and less than that of two %prints%.
The single %print% is picked up from the stack and held by %one% frame %section% while the stack is held by the other frame %section%. The %print% is guided to the other side of the stack on the return movement of the frame.
ADVANTAGE - Automatic reliable one %print% handling. (105pp Dwg.No.14/144)
Abstract (Equivalent): EP 203155 B

Device for the cyclic rearrangement of a pile of rectangular or square sheets, in particular a pile of photographic %prints%, with a first (12) and a second (14) frame %part% which are %movable% relative to one another and parallel to the main plane of the pile, and with means which, on movement of the frame parts backward and forward, remove an individual sheet at one end of the pile and add it to the other end of the pile, which means comprise: (a) a separating means (20,68,69,28,71) for separating the individual sheet (188)' from the pile (182), (b) a feeding means (22) for feeding sheets to separating means, (c) retaining means (32,80) for retaining the individual sheet in the first frame part (12) and the remainder of the pile in the second frame part (14), and (d) a guide means (79) for guiding the separated individual sheet for the purpose of returning it to the other end of the remainder of the pile, wherein the separating means comprises: a separator (20,69,242,250,254) in the second frame part (14), which has surface portions (386) bounded by an end edge for retaining the remainder of the pile, and a supporting means (26,218,238,256,264,266) provided on one of the frame parts which %positions% the individual %sheet%, characterised in that to form a through-slot for the individual sheet there are provided spacer elements (68,246,262) which hold the separator end edge (254) and the supporting means at a fixed distance apart which is greater than the thickness of one sheet and less than the thickness of two sheets. (71pp)

Abstract (Equivalent): GB 2179925 B

Device for the cyclic rearrangement of a pile of rectangular yoke square sheets, especially a pile of photogrpahic %prints%, having a first and a second frame %part% which may be %moved% relative to one the and parallel to the planes of the sheets in the pile, and having means that, on movement of the frame parts away from and towards each support, remove an individual sheet at one end of the pile and add it to the other end of the pile, these means including: sheet-engaging means arranged to engage a single sheet to be separated and which, upon relative movement of the frame parts, cooperates with separating means to remove the engaged sheet from the rest of the pile while the latter is being retained by rest-of-the-pile engaging means; retaining means for holding the individual sheet in the first frame part and the remainder of the pile in the other frame part, and a guide means for guiding the separated individual sheet for the purpose of returning it to the other end of the remainder of the pile, wherein the separating means comprises a first separating element and a second separating element which, resiliently biassed towards one the which for the entry of the sheet being separated has a spacing greater than the thickness of one sheet and less than the thickness of two sheets, and the spacing is maintained during the outward movement of the frame part or is reduced to the thickness of the sheet which is separated.

Abstract (Equivalent): US 4759142 A

The feed is for the cyclic rearrangement of a pile of rectangular or square sheets, a pile of photographic %prints%. It has a first and a second frame %part% which may be %moved% relative to one another and parallel to the main plane of the pile. A picture changer on movement of the frame parts backwards and forwards, removes an individual sheet at one end of the pile and adds it to the other end of the pile.

The picture changer includes a first and a second separator which, resiliently biased towards each other, define a through-gap which for the entry of the sheet being separated has a spacing greater than the thickness of one sheet and less than the thickness of two sheets, which spacing is, during the outward movement of the frame parts, maintained

or reduced to the thickness of the sheet being separated, as approp.

ADVANTAGE - Reduced deformation of %prints%. (65pp)

US 4939860 A

The machine is for the cyclic rearrangement of a pile of rectangular or square sheets, a pile of photographic %prints%. It has a first and a second frame %part% which may be %moved% relative to one another and parallel to the main plane of the pile, and a picture changer which, on movement of the frame parts backwards and forwards, removes an individual sheet at one end of the pile and adds it to the other end of the pile.

The picture changer includes a first and a second separator which, resiliently biased towards each other, define a through-gap which for the entry of the sheet being separated has a spacing greater than the thickness of one sheet and less than the thickness of two sheets

28/3,AB/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004437971
WPI Acc No: 1985-264849/198543
XRPX Acc No: N85-197824
Rotary two-sided sheet %printing% machine - has sheet reversing device between %two% %printing% %stations% on lower frame, with accumulator drum
Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC)
Inventor: WIRZ A
Number of Countries: 014 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 158816	A	19851023	EP 85102708	A	19850309	198543	B
DE 3413159	A	19851024	DE 3413159	A	19840407	198544	
AU 8539124	A	19851010				198548	
ZA 8501191	A	19850821				198548	
DE 3413159	C	19860918				198638	
CA 1234012	A	19880315				198815	
US 4732084	A	19880322	US 86936968	A	19861201	198815	
EP 158816	B	19880601				198822	
DE 3563005	G	19880707				198828	

Priority Applications (No Type Date): DE 3413159 A 19840407
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 158816	A	G	12		
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					
EP 158816	B	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					

Abstract (Basic): EP 158816 A
The machine %prints% single sheets in multi-colour on one side or on both sides in one colour. It has %printing% %stations% (1-4) for %printing% different colours on the same side of the sheet. Between %two% %printing% %stations% (2,3) there is a lower part (5) of the arrangement of %printing% cylinders, which is equipped with a device to reverse the sheet in order to %print% the other side at the next stations (3,4).
The reversing device comprises a storage drum (13), replacing a %printing% cylinder (9). There is also a %sheet% %transfer% drum (12) with a dia. twice that of the %printing% cylinder, and a reversing cylinder (15) equipped with gripping devices (16).
ADVANTAGE - adjustable %printing% machine, suitable also for %printing% thick cardboard sheets.
1/1
Abstract (Equivalent): DE 3413159 C
Rotary off-set series press includes %printing% cylinders, storage drum and sheet support surfaces with format adjustment.
The press has four series positioned stands (1,2,3,4). Between the stands is fitted a storage drum (13) and drying unit (14), also a turn-over drum (15) with gripper mechanism (16). A plate cylinder (10) and rubber blanket cylinder completes the unit.
ADVANTAGE - Efficient sheet handling. (5pp Dwg.No.1/1)n
Abstract (Equivalent): EP 158816 B

Sheet-fed rotary %printing% machine for single-side multi-colour %printing% or perfecting of an inline construction with at least one turning device and with devices for processing both paper and cardboard, each %printing% unit (1,2,3,4) having, in addition to a plate cylinder (10) and a blanket cylinder (11), an impression cylinder (9) with at least a double-sized diameter and a %sheet% %transfer% drum (12), wherein between two neighbouring %printing% units (2,3) there is provided a lower %printing% unit %section% (5) comprising %parts% of a %turning% device, wherein, in place of the impression cylinder (9), said lower %printing% unit %section% (5) has a storage drum (13) with at least two sheet-carrying surfaces and also a %sheet% %transfer% drum (12) with at least a double-sized diameter, and following a storage drum (13), of the adjacent %printing% unit (3) is designed as a turning cylinder (15) with at least two pincer-type gripper systems (16). (6pp)

Abstract (Equivalent): US 4732084 A

At least one sheet-turning device is provided, as well as devices for processing both papers and cardboard. Respective %printing% units each have, in addition to a plate cylinder and a blanket cylinder of equal given dia., an impression cylinder having a dia. at least double the given dia. A %sheet% %transfer% drum includes a lower %printing% -unit part with %parts% of the %turning% device located between an adjacent pair of the %printing% units.

The lower %printing%-unit part has a storage drum in place of an impression cylinder. The storage drum is formed with at least two sheet-carrying surfaces. A %sheet% %transfer% drum has a dia. at least double the given dia. The %printing% unit of the adjacent pair of %printing% units following the lower %printing%-unit part, in travel direction of a sheet through the %printing% machine, has a %sheet% %transfer% drum formed as a turning cylinder following the storage drum.

USE - A sheet-fed rotary %printing% machine for single-side multi-colour %printing% or perfector %printing% having an in-line type of construction. (5pp)s

28/3,AB/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004025520
WPI Acc No: 1984-171062/198427
XRPX Acc No: N84-127499
Embossing machine e.g. for plastics credit card - has two %print% wheels carrying embossing elements on opposite sides of path of card through machine
Patent Assignee: DATA CARD CORP (DATA-N)
Inventor: CARNEY G R; GABEL E R; GERLACH L E; HOWES R B; NUBSON R C; POLAD M D; SCHMIDT R H
Number of Countries: 013 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8402307	A	19840621	WO 83US1951	A	19831213	198427	B
AU 8424186	A	19840705				198440	
EP 128207	A	19841219	EP 83900260	A	19831213	198451	
JP 60500566	W	19850425	JP 83500342	A	19831213	198523	
US 4688785	A	19870825	US 85697434	A	19850201	198736	
EP 128207	B	19910220				199108	
DE 3382166	G	19910328				199114	

Priority Applications (No Type Date): US 82449131 A 19821213
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8402307	A	E	39		
Designated States (National): AU DE JP					
Designated States (Regional): AT BE CH DE FR GB LU NL SE					
EP 128207	A	E			
Designated States (Regional): AT BE CH DE FR GB LI LU NL SE					
EP 128207	B				
Designated States (Regional): AT BE CH DE FR GB LI LU NL SE					

Abstract (Basic): EP 128207 A
A %document% %transfer% mechanism for transporting a document (34) along a %document% %transfer% path in particular for a card for indexing cards along a card track, comprising belt means (62) passing over first and second wheel means (68, 70) %mounted% adjacent to said %document% %transfer% path (35) for aligning a segment of the belt means (62) with the %document% %transfer% path, at least one spur means (64) projecting from the belt means (62) for engaging the trailing %edge% of a %document% (34) %positioned% on the %document% %transfer% path between the first and second wheel means (68, 70), drive means (66) for moving the drive belt means (62) and pushing a document (34) from the first wheel means (68) to the second wheel means (70), characterized by accelerator means (80, 82) driven in synchronism with the drive means (66) for engaging the leading %edge% of a %document% (34) approaching the second wheel means (70) and increasing the transport speed of the document relative to the belt means, thereby disengaging the spur means (64) from the trailing %edge% of the %document% means prior to the spur means (64) passing over the second wheel means (70). (6pp)
Abstract (Equivalent): EP 128207 B
A %document% %transfer% mechanism for transporting a document (34) along a %document% %transfer% path in particular for a card for

indexing cards along a card track, comprising belt means (62) passing over first and second wheel means (68, 70) %mounted% adjacent to said %document% %transfer% path (35) for aligning a segment of the belt means (62) with the %document% %transfer% path, at least one spur means (64) projecting from the belt means (62) for engaging the trailing %edge% of a %document% (34) %positioned% on the %document% %transfer% path between the first and second wheel means (68, 70), drive means (66) for moving the drive belt means (62) and pushing a document (34) from the first wheel means (68) to the second wheel means (70), characterized by accelerator means (80, 82) driven in synchronism with the drive means (66) for engaging the leading %edge% of a %document% (34) approaching the second wheel means (70) and increasing the transport speed of the document relative to the belt means, thereby disengaging the spur means (64) from the trailing %edge% of the %document% means prior to the spur means (64) passing over the second wheel means (70).

Abstract (Equivalent): WO 8402307 A

The machine utilizes several pairs of cooperative embossing elements positioned on opposite sides of a card to emboss a selected character at a desired imprint location. The machine includes an arrangement for positioning the card with the desired impact location aligned with an embossing %station% and %two% %print% wheels rotatably mounted on separate shafts on opposite sides of the path of the card. Each wheel is constructed and arranged for carrying a number of embossing elements about its circumference with each %element% slidably %movable% along the axis of the wheel towards the card path.

Mechanisms are provided for rotating the wheels and positioning a selected pair of elements at the embossing station. Reciprocating mechanisms are provided for cyclically engaging the selected Pair of elements and applying a selected character to the desired location on the card. This machine does not require an electromechanical interposer to couple movement of reciprocating mechanisms to selected pair of elements.

0/8

US 4688785 A

A pair of opposed embossing element carrying wheels are driven by oscillating bail arms which directly engage an embossing punch and die elements. An electromechanical interrupter decouples motion of the bail arm from the embossing elements in the event of a failure.

The %print% wheels are driven by separate motors utilising separate position encoders and common servo command circuits. An accelerator roller and belt are provided, and pref. driven in incremental steps.

ADVANTAGE - Prevents application of full embossing pressure to %print% elements in event of failure.

28/3,AB/9 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

06158096
THINNING METHOD IN INK-JET %PRINTING%

PUB. NO.: 11-099639 [JP 11099639 A]
PUBLISHED: April 13, 1999 (19990413)
INVENTOR(s): MORI NORIYASU
APPLICANT(s): ROLAND DG CORP
APPL. NO.: 09-283023 [JP 97283023]
FILED: September 29, 1997 (19970929)

ABSTRACT

PROBLEM TO BE SOLVED: To control the generation of bleeding and gap parts by a method in which dots to be insertion-drawn into a %print% area of %one% %section% extended horizontally by the multi-pass of an ink head are arranged by a method in which several dots which continue in a line along the transfer direction of a recording medium are made one set, and each set does not contact each other.

SOLUTION: In a head part, after the whole %print% area 19a of %one% %section% in a sheet 16 being insertion-drawn, the sheet 16 moves, and the next area 19a is insertion-drawn. Four heads K, Y, C, M are included, sixty discharge holes 18 are formed in parallel in the %transfer% direction of the %sheet% 16 in a lower surface, ink is discharged while some of them being selected appropriately. In %printing% , four holes 18 arranged continuously in the %transfer% direction of the %sheet% 16 are made one set, ink is discharged while each set is rearranged randomly, the head %part% is %moved% from the left to the right. Next, each dot is combined into four, each set is prevented from contacting each other and insertion-drawn.

28/3,AB/10 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

05415062
WRAPAROUND CASER FOR %PRINTED% MATTER

PUB. NO.: 09-029862 [JP 9029862 A]
PUBLISHED: February 04, 1997 (19970204)
INVENTOR(s): ENDO HIDEKO
KATAOKA KUNIO
ASAINA YOSHIHIDE
APPLICANT(s): ENDO SHASHIN KOUGEISHIYO KK [000000] (A Japanese Company or Corporation), JP (Japan)
ASAINA MICHIKO [000000] (An Individual), JP (Japan)
APPL. NO.: 07-183037 [JP 95183037]
FILED: July 19, 1995 (19950719)

ABSTRACT

PROBLEM TO BE SOLVED: To eliminate a large space for storing cases and complicated manual work for loading by forming the cases simultaneously with loading of %printed% matters into the cases.

SOLUTION: Base papers 12 for cases are moved one by one from a base paper storing %section% 14 to a %first% set %position% by a base %paper% send-out mechanism. %Printed% matters 16 are also moved one by one from a %printed% matter storing %section% 18 to a predetermined %position% on a %sheet% of case base paper at the first set position by a book send-out mechanism. Next, the case base paper and the %printed% matter are moved from the first set position by moving means 26 and 40. During the %moving% operation, a %part% extruded from the %printed% matter of the case base paper 12 is folded so as to be superposed at its one part (ridge) due to contact of a folding means at its outside face. At the time of the folding operation, an opposite face of the superposed part is coated with an adhesive material by a paste coating means. After the folding is completed, the adhered superposed part is compressed by a final compression means from the outside.
?

30/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014165904
WPI Acc No: 2001-650132/200175
XRPX Acc No: N01-485999
Stripping apparatus for manufacturing of %printed% articles has shoulder of movable pin being engageable with retaining shoulder to limit outward travel of movable pin
Patent Assignee: HALLMARK CARDS INC (HALL-N)
Inventor: SHULTZ G A
Number of Countries: 002 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2359511	A	20010829	GB 20013648	A	20010214	200175	B
AU 200119720	A	20010816	AU 200119720	A	20010213	200175	

Priority Applications (No Type Date): US 2000503633 A 20000214
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2359511	A		15	B26F-001/24	
AU 200119720	A			B26D-007/18	

Abstract (Basic): GB 2359511 A
Abstract (Basic):
NOVELTY - The movable pin has a first portion with a diameter equal to the diameter of the first portion of the pin bores of the second stripping assembly and a second portion with a diameter of the second portion of the pin bores of the second stripping assembly. A shoulder (55) is defined between the first portion and the second %portion% of the %movable% pin.
DETAILED DESCRIPTION - The shoulder of the movable pin is engageable with the retaining shoulder to limit outward travel of the movable pin. At least one spring (59) is provided for urging the movable pin outwardly of the pin bore of the second block. The apparatus (11) has two stripper assemblies (13,15) moveably mounted with respect to each other. The first stripping assembly has a block including pin bores (25) and at least one fixed pin (27a) insertable in one of the pin bores. The second stripping assembly has similar pin bores (43) with at least one moveable pin (49) retained in it. Each pin bore of the second stripping assembly has a first diameter portion and a second diameter portion defining a retaining shoulder (47) between them.
USE - For stripping scrap or punch-outs from die-cut sheets during the manufacture of %printed% articles, such as greeting cards.
ADVANTAGE - Produces with more intricate punch-out design elements.

DESCRIPTION OF DRAWING(S) - The drawings are a perspective view of a stripping apparatus, and a %section% view of %first% and second stripper assemblies of the apparatus with a portion of a die-cut %sheet% %positioned% between the stripper assemblies.
Stripping apparatus (11)
Stripper assemblies (13,15)
Pin bores (25,43)
Fixed pin (27a)
Moveable pin (49)

Retaining shoulder (47)
Shoulder (55)
Spring (59)
pp; 15 DwgNo 1, 2/4

30/3,AB/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011100664
WPI Acc No: 1997-078589/199708
XRPX Acc No: N97-065206
Appts. for transporting sheets to be %printed% e.g. forms into %printer% - has drive mechanisms for paper receiving slits and releasable clamp to grip sheet released by actuator in engagement with it in slit start position
Patent Assignee: SIEMENS NIXDORF INFORM AG (SIEI)
Inventor: BAITZ G; DOBRING W
Number of Countries: 019 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 19542233	C1	19970123	DE 1042233	A	19951113	199708	B
WO 9718086	A2	19970522	WO 96DE2117	A	19961106	199726	
WO 9718086	A3	19970828	WO 96DE2117	A	19961106	199749	
EP 861153	A2	19980902	EP 96945976	A	19961106	199839	
			WO 96DE2117	A	19961106		
JP 11500701	W	19990119	WO 96DE2117	A	19961106	199913	
			JP 97518498	A	19961106		
EP 861153	B1	20000315	EP 96945976	A	19961106	200018	
			WO 96DE2117	A	19961106		
DE 59604700	G	20000420	DE 504700	A	19961106	200026	
			EP 96945976	A	19961106		
			WO 96DE2117	A	19961106		
US 6059471	A	20000509	WO 96DE2117	A	19961106	200030	
			US 9868698	A	19980513		

Priority Applications (No Type Date): DE 1042233 A 19951113
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19542233	C1		8	B41J-013/22	
WO 9718086	A2	G	19	B41J-000/00	
Designated States (National): JP US					
Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
WO 9718086	A3			B41J-013/22	
EP 861153	A2	G		B41J-013/22	Based on patent WO 9718086
Designated States (Regional): DE FR GB IT					
JP 11500701	W		15	B65H-005/10	Based on patent WO 9718086
EP 861153	B1	G		B41J-013/22	Based on patent WO 9718086
Designated States (Regional): DE FR GB IT					
DE 59604700	G			B41J-013/22	Based on patent EP 861153
					Based on patent WO 9718086
US 6059471	A			B41J-013/22	Based on patent WO 9718086

Abstract (Basic): DE 19542233 C
The appts. includes a salt (14) to receive the sheet to be %printed%. The slit (14) is provided in a frame and can be moved perpendicular to the line direction between a start position for inserting and removing the %sheets% and an end %position% guided into the %printer%. The slit (14) is moved by a drive device. A clamp (26) is releasably arranged on the slit (14) to fixedly clamp the sheet

(18). This has a release mechanism which is actuated by an actuator which lies in engagement with it in the slit start position. The clamp (26) has an abutment surface (22) for the sheet (18), and a spring actuated clamp lever (35) biased in the clamp direction. An actuator cam (48) is attached to the lever (35).

A control strip (40) is provided on the frame (12), on which the cam (48) is guided during movement of the slit (14) such that in the start position of the slit (14) the cam (48) lies at a predetermined %section% (42) of %one% side of the strip (40) where the clamp (26) is released. After the slit has moved in a direction opposite to the end position the cam (48) passes over the top edge of the strip (40) and the clamp (26) is closed. When the slit moves to the end position, the cam (48) slides to the end on the other side of the strip (40) and slides along it when the slit moves to the start position where the clamp stays closed.

ADVANTAGE - Has fewer %movable% control %elements% and control is much simplified.

Dwg.1/3

30/3,AB/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009748535
WPI Acc No: 1994-028386/199404
XRPX Acc No: N94-022030
Sheet feed between %printers% - has pain of drums with grippers for %sheet% %edges% and suction holders for rear edges
Patent Assignee: HEIDELBERGER DRUCKMASCH AG (HEIC); HEIDELBERGER DRUCKMASCHINEN AG (HEIC)
Inventor: HELMSTAEDTER K; HELMSTADTER K; HELMSTADTER K-H
Number of Countries: 005 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2269370	A	19940209	GB 9314683	A	19930715	199404	B
DE 4322477	A1	19940120	DE 4322477	A	19930706	199404	
FR 2693946	A1	19940128	FR 938682	A	19930715	199408	
US 5335597	A	19940809	US 9391967	A	19930715	199431	
GB 2269370	B	19951115	GB 9314683	A	19930715	199549	
DE 4322477	C2	19951221	DE 4322477	A	19930706	199604	
JP 3160121	B2	20010423	JP 93175307	A	19930715	200125	

Priority Applications (No Type Date): DE 4322477 A 19930706; DE 4223188 A 19920715
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2269370	A		30	B41F-021/10	
DE 4322477	A1		13	B41F-021/10	
FR 2693946	A1			B41F-021/10	
US 5335597	A		14	B41F-005/02	
GB 2269370	B			B41F-021/10	
DE 4322477	C2		13	B41F-021/10	
JP 3160121	B2		14	B41F-021/10	Previous Publ. patent JP 6155721

Abstract (Basic): GB 2269370 A

Sheets are fed between upstream and downstream %printers% by drums (%one%) drum (2) has %sections% (14) with grippers (16) for the leading end of a sheet, and has sections (15) with suctions holders (18) for a trailing edge. The sections are relatively angularly adjustable to accommodate different sheet sizes.

A control (45) is operable to move pivotal catches (37, 38) into an operative, spring-urged condition in which they engage projections (39,40) to halt rotation of the sections (15) as the drum is rotated. Further rotation of the other drum sections (14) then adjusts the angular separation between the sections (14) and (15). If a sheet is to be turned for %printing% to be carried out on both sides, its trailing end held at 18 (rather than its leading end gripped at 16) is transferred to grippers on the other turning drum.

ADVANTAGE - Allows optimised operation w,.r.t. time.

Dwg.1/4

Abstract (Equivalent): GB 2269370 B

Process for the switching on and off of sheet turning and for sheet-size setting in the transport of sheets through a %printing% press, wherein the sheets are transported, by at least one transport drum, singly in succession between two %printing% units; wherein, furthermore, at changeover of the %printing% press from recto-

%printing% mode to recto-and-verso-%printing% mode and back again and for sheet-size setting, starting from a changeover position, the phase positions of the %printing% units with respect to one another are reset in that the %part% not to be %rotated% in the driving system of the %printing% press is position-locked and the remaining part in the driving system is rotated through a defined angle in relation to the position-locked part; wherein, furthermore, the gripper-opening timings and the sequence of movement of the grippers of the sheet-accepting and sheet-delivering transport drums are reset, with the result that, in recto-%printing% mode, the sheets are delivered and accepted by the %sheet% front %edge% and, in recto-and-verso-%printing% mode, the sheets are accepted by the %sheet% rear %edge%; and wherein, if required, for sheet-size setting, on a transport drum, said transport drum serving as a storage drum, the devices holding the %sheet% rear %edge% are set to the trailing end of the respective sheet according to the sheet-size in that said devices are reset, in relation to the grippers holding the %sheet% front %edge%, by defined angle about a common shaft; wherein the transport drum elements that are to be moved in the switching on and off of sheet turning and in %sheet%-size resetting are %positioned% and located by means of a control apparatus, said control apparatus being connected to actuating elements for said transport drum elements and to sensor elements for detecting the position of said transport drum elements, characterised in that sheet turning is switched on and sheet-size setting for recto-and-verso-%printing% mode is performed; (a) in that, after attainment of a zero position of the transport drums a position-locking element is operated and after release of the position-locking means between the %part% to be %rotated% and the %part% not to be %rotated% in the driving system of the %printing% press, between the %sheet%-rear-%edge%-holding devices and the %sheet%-front-%edge%-holding grippers of the storage drum and between the gripper-control elements and the frame of the %printing% press, a catch of a two-sided asymmetrically acting catch-locking mechanism for the acceptance of a bolt-said catch being swivelably attached to the frame of the %printing% press and being provided with a leading bevel - is brought under remote control into a working position, with the bolt being attached to a part of the storage drum at which also are seated the %sheet%-rear-%edge%-holding devices, and with the catch being subjected to a spring force in the radial direction of the storage drum; (b) in that, furthermore, the %part% to be %rotated% in the driving system of the %printing% press - with which the storage drum is associated - and the gripper-control elements of the storage drum are together rotated at least through a basic changeover angle and an %angle% dependent on the %sheet%-size setting in recto-%printing% mode, until the catch latches in position over the bolt, with the gripper control of the turning drum being simultaneously changed over; (c) in that, furthermore, for sheet-size setting, with the catch latched in position over the bolt, said catch %position% -locking the %sheet%-rear-%edge%-holding devices the %part% to be %rotated% and the gripper-control elements of the storage drum are further reset by an angle, with the result that the sheet-holding grippers and devices assume the positions appropriate to the desired sheet size; (d) and in that the released position-locking means are restored to operation, the position-locking means are put out of operation, and the catch is brought under remote control into a rest position; and further characterised in that sheet turning is switched off; (e) in that, after attainment of the vicinity of the zero position of the transport drums, the position-locking element is operated and after repeated release of said position-locking means, the %part% to be

%rotated% of the %printing% press associated with the storage drum together with the gripper-control %elements% is %turned% back through the basic changeover angle plus the %angle% dependent on the %sheet% -size setting in verso-%printing% mode; and further characterised in that sheet-size setting in recto-%printing% mode is performed; (f) in that, after release of the position-locking means between the %sheet% -rear-%edge%-holding devices and the %sheet%-front-%edge%-holding grippers of the storage drum, the catch is brought into the aforementioned working position; (g) in that, furthermore, the storage drum is rotated until the catch latches in position over the bolt; (h) in that, furthermore, with the catch latched in position over the bolt, the part of the storage drum carrying the grippers is reset by an angle, with the result that the sheet-holding grippers and devices assume the %positions% appropriate to the %sheet% size to be used in recto-%printing% mode; and (i) in that the position-locking means is restored to operation and the catch is brought into the rest position.

(Dwg.1)

Abstract (Equivalent): US 5335597 A

The method is for automatically and semi-automatically starting and stopping a sheet-turning operation and for sheet-format adjusting during sheet transport through a recto-and-verso %printing% press.

The sheets are singly transported in succession, by at least one transport drum, between two %printing% units with the aid of remotely operated actuating and position-locking controls, the gripper-controls and sheet-holding segments of a storage drum are disposed so that %sheets% are %transferred% from the storage drum to a turning drum by the leading or trailing %edge% of the %sheets%, depending upon the mode of operation. The grippers are thus adjusted to an appropriate sheet format.

ADVANTAGE - Adjustment of the sheet format can be performed both in recto-%printing% mode as well as in recto-and-verso %printing% mode.

Dwg.4/4

30/3,AB/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009400659
WPI Acc No: 1993-094168/199311
XRPX Acc No: N93-072028
Duplex %printing% apparatus for liquid toner electrographic imaging systems - has two image carrying members, transfer mechanism, waiting station, output station, deflector and roller mechanism, with short straight path for fast transfer
Patent Assignee: SPECTRUM SCI BV (SPEC-N); INDIGO NV (INDI-N)
Inventor: BLUM Y; LANDA B; SAGIV O
Number of Countries: 034 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9304409	A1	19930304	WO 91NL151	A	19910814	199311	B
AU 9183385	A	19930316	AU 9183385	A	19910814	199328	
EP 598717	A1	19940601	EP 91914774	A	19910814	199421	
			WO 91NL151	A	19910814		
JP 7500678	W	19950119	JP 91513612	A	19910814	199512	
			WO 91NL151	A	19910814		
US 5552875	A	19960903	WO 91NL151	A	19910814	199641	
			US 94185812	A	19940908		
EP 598717	B1	19981028	EP 91914774	A	19910814	199847	
			WO 91NL151	A	19910814		
DE 69130425	E	19981203	DE 630425	A	19910814	199903	
			EP 91914774	A	19910814		
			WO 91NL151	A	19910814		
CA 2115644	C	20020416	CA 2115644	A	19910814	200234	
			WO 91NL151	A	19910814		
JP 3356279	B2	20021216	JP 91513612	A	19910814	200302	
			WO 91NL151	A	19910814		

Priority Applications (No Type Date): WO 91NL151 A 19910814
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9304409	A1	E	32	G03G-015/00	
Designated States (National): AT AU BB BG BR CA CH DE DK ES FI GB HU JP KP KR LK LU MC MG MW NL NO PL RO SD SE SU US					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LU NL OA SE					
AU 9183385	A			G03G-015/00	Based on patent WO 9304409
EP 598717	A1	E	32	G03G-015/00	Based on patent WO 9304409
Designated States (Regional): DE FR GB IT					
JP 7500678	W		1	G03G-015/00	Based on patent WO 9304409
US 5552875	A		15	G03G-021/00	Based on patent WO 9304409
EP 598717	B1	E		G03G-015/00	Based on patent WO 9304409
Designated States (Regional): DE FR GB IT					
DE 69130425	E			G03G-015/00	Based on patent EP 598717
					Based on patent WO 9304409
CA 2115644	C	E		G03G-015/00	Based on patent WO 9304409
JP 3356279	B2		12	G03G-015/00	Previous Publ. patent JP 7500678
					Based on patent WO 9304409

Abstract (Basic): WO 9304409 A
The first member has an image support surface to sequentially

support the first and second images. The second member supports the %substrate%. The %transfer% mechanism moves the first image from the image support surface to the first side of the substrate and performs partial fixing of the image. The waiting station receives the %substrate% after %transfer% of the first image and prior to the transfer of the %second% image. The output %station% receives the substrate after completion of the image transfer.

Adjacent to the second member, the deflector mechanism receives the substrate directly from the second member and deflects the substrate towards the waiting station or the output station. The roller mechanism engages the trailing %edge% of the %substrate% and delivers it back to the second member.

ADVANTAGE - Provides duplex %printing% without the need for inverting segments and/or complex control mechanisms.

Dwg.1/6

Abstract (Equivalent): US 5552875 A

Paper delivery apparatus for a duplex %printer% comprising:

a shaft;

a motorized roller spaced from the shaft;

at least one pair of arms joined at a pivot and spring loaded with respect to each other at the pivot, one end portion of the pair of arms fixedly attached to the shaft and an opposite end %portion% having a wheel %rotatably% attached thereto and defining a nip with respect to the roller;

means for transporting a substrate through the nip;

a waiting station and an output station adapted to receive the substrate upon exiting from the nip; and

means for selectably rotating the shaft to first and second positions, such that at the first %position% the %substrate% exits from the nip to the waiting %station% and at the %second% %position% the %substrate% exits from the nip to the output station.

(Dwg.1/6

30/3,AB/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009344215
WPI Acc No: 1993-037682/199305
XRPX Acc No: N93-028833
Optical laser %print% unit housing e.g. for facsimile machine - has two %part% housing with %rotating% polygon mirror in %one% %section% and laser focussing element in other
Patent Assignee: ASAHI KOGAKU KOGYO KK (ASAO)
Inventor: HIRANO M
Number of Countries: 002 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 4224381	A1	19930128	DE 4224381	A	19920723	199305	B
US 5299051	A	19940329	US 92916694	A	19920722	199412	
DE 4224381	C2	19960502	DE 4224381	A	19920723	199622	

Priority Applications (No Type Date): JP 91U85736 U 19910723
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4224381	A1		8	G02B-026/10	
US 5299051	A		8	G02B-026/10	
DE 4224381	C2		8	G02B-026/10	

Abstract (Basic): DE 4224381 A
The %printer% housing uses a photosensitive drum onto which a charge image is produced using a laser that is housed in the base of the %printer%. The housing is divided into %two% %sections% (80, 90) and the laser (72) has a beam reflected by a prism (74) that rotates to direct the beam along an optical path.
A pair of mirrors (101, 102) direct the modulated beam along a required path and onto the surface of the drum. A toner is deposited onto the charged surface and this is %transferred% onto %paper% as hard copy.
ADVANTAGE - Stable laser unit for %printing%.
Dwg. 2/3
Abstract (Equivalent): US 5299051 A
The housing includes a dynamic deflector disposition area in which the dynamic deflector is disposed, and an optical element disposition area which is formed stepwise with respect to the dynamic deflector disposition area though a vertical wall and in which the optical elements are disposed.
ADVANTAGE - Can be very rigidly arranged and enables optical elements to be functionally.
Dwg.2/3

30/3,AB/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

008570618
WPI Acc No: 1991-074651/199111
XRPX Acc No: N91-057687
%Transfer% mechanism for %sheets% from main stack to processing station - has supply stack of paper sheets located on pallet which is provided with separating head mounted on horizontal track rail
Patent Assignee: MOHR W (MOHR-I)
Inventor: MOHR W
Number of Countries: 012 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3933626	C	19910314	DE 3933626	A	19891007	199111	B
EP 422562	A	19910417	EP 90119267	A	19901008	199116	
US 5096370	A	19920317	US 90592211	A	19901003	199214	
EP 422562	A3	19920226	EP 90119267	A	19901008	199324	
EP 422562	B1	19950405	EP 90119267	A	19901008	199518	
DE 59008840	G	19950511	DE 508840	A	19901008	199524	
			EP 90119267	A	19901008		
ES 2070969	T3	19950616	EP 90119267	A	19901008	199531	

Priority Applications (No Type Date): DE 3933626 A 19891007
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 422562	A				
Designated States (Regional): BE CH DE ES FR GB IT LI LU NL SE					
US 5096370	A		16		
EP 422562	B1	G	20	B65H-003/60	
Designated States (Regional): BE CH DE ES FR GB IT LI LU NL SE					
DE 59008840	G			B65H-003/60	Based on patent EP 422562
ES 2070969	T3			B65H-003/60	Based on patent EP 422562

Abstract (Basic): DE 3933626 C

The %transfer% mechanism for %sheets% from main stack to processing station has a supply stack (2) of paper sheets, located on a pallet (1) which is provided with a separating head (9), mounted on a horizontal track rail, for the removal of partial stacks (5) from the top of the supply stack.

The partial stack is transferred onto a platform (15) on an adjacent mechanism (3) which bends the stack in order to achieve separation between the individual sheets. The stack is then transferred to a machine for further processing, such as a %printing% press.

ADVANTAGE - %Paper% stack %sheet% %transfer% mechanism between supply stack and %printing% press produces reliable sheet separation. (17pp Dwg.No.1/15)

Abstract (Equivalent): EP 422562 B

An appts. for delivering a partial stack of material in sheet form from a complete stack (2) to a further processing station, particularly a vibrating station (3), having a device for transferring the partial stack (5) to a device for breaking up the partial stack and a device for transferring the broken up partial stack to the further processing station, characterised in that the device for breaking up the partial stack (5) comprises a table mounted in a travelling holder (13), which

table has a table part (21, 25) at least in the region of one end which can be folded up out of the horizontal plane of the table, and a pressure element (4) which can be brought into contact with the region of the partial stack (5) associated with the table part (21, 25) is mounted in the holder (13) above the table part (21, 25), wherein the table (15) is moved into the complete stack (2) between the partial stack (5) and the residual stack (6) for taking over the partial stack (5) in a first end position and is positioned above the further processing %station% (3) in a %second% end position.

Dwg.1/15

Abstract (Equivalent): US 5096370 A

The device has a table (15) which is mounted in a movable chassis (13) and which is provided at least in the area of one end with a table part (21) which can be folded up out of the horizontal table plane. A pressure element (40), which can be lowered onto that area of the part stack assigned to the table part, is mounted in the chassis above the table part.

The table, in a first end position for the take-over of the %part% stack, is %moved% into the stack between the part stack and the remaining stack. In a second end position , it is positioned above the further-processing station.

USE/ADVANTAGE - A device for the transfer of a part stack (5) of material in sheet form from a general stack (2) to a further-processing station, in particular a vibrating station (3). A device of such design makes it possible, with constructionally simple formation and at the same time adjacent arrangement of general stack and further-processing station, to transfer the part stack from the general stack

30/3,AB/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007565620
WPI Acc No: 1988-199552/198829
XRPX Acc No: N88-152256
Automatic electronic component mounting appts. with suction nozzles - has periphery of intermittently rotating turntable where components are subjected to stepwise adjustments at transfer stations
Patent Assignee: SANYO ELECTRIC CO (SAOL)
Inventor: HINENO K; NUSHIYAMA S
Number of Countries: 015 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 275103	A	19880720	EP 88100458	A	19880114	198829	B
JP 63174400	A	19880718	JP 876553	A	19870114	198834	
US 4905370	A	19900306	US 88144060	A	19880112	199016	

Priority Applications (No Type Date): JP 876553 A 19870114
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 275103	A	E	26		

Designated States (Regional): AT BE CH DE ES FR GB GR IT LI LU NL SE

Abstract (Basic): EP 275103 A

The %printed% circuit board is transferred (3) from a supply conveyor (2) to an X-Y table (4) which is moved by one pawl (7) while another pawl (8) effects the transfer. The components are transferred from a supply bed (13) to a turntable (10) on whose periphery eighteen suction heads (12) are movable up and down.

The bed (13) is supplied from a tape (16) which is unwound from a reel (17) and carries tipped components spaced at uniform intervals. The positioning units are activated selectively according to the size and shape of each component which is detected as being present under a suction nozzle.

USE/ADVANTAGE - Esp. for mounting tipped resistors, capacitor or transistors of various sizes and shapes. Positioning accuracy increased and components can be mounted at faster rate.

2/27

Abstract (Equivalent): US 4905370 A

A series of suction nozzles are provided on the peripheral edge of an intermittently %rotating% %turntable%. Electronic %parts% are delivered to the %turntable% from a %part% supply portion, with the parts suctioned and held by the suction nozzles. The electronic parts are then transferred, positioned and %mounted% on a %print% %substrate% placed on an X-Y table. A part adjustment subjects the electronic parts suctioned and held by the suction nozzle to various stepwise adjustments at a number of working stations provided during the part transfer.

The part adjusting unit comprises positioning working units for positioning electronic parts arranged in correspondence to %one% part positioning %station% of the working units. Each of the positioning working units is selectively actuated according to the size and shape of the electronic parts. The positioning of the electronic parts prior to %mounting% on the %print% %substrate% can be crrried out with high accuracy, eliminating the necessity for replacing the apparatus according to the size and shape of the tipped parts.

USE - Automatic mounting unit for electronic parts pref. with depending leader

30/3,AB/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004749721
WPI Acc No: 1986-253062/198639
XRPX Acc No: N86-189231
Machine for packing %printed% sheets in envelope of plastics film - has device to fold and weld edges of plastics fed as continuous strip
Patent Assignee: GRAPHA-HOLDING AG (GRAP-N)
Inventor: LINDER H
Number of Countries: 004 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3603286	A	19860918	DE 3603286	A	19860204	198639	B
GB 2174058	A	19861029	GB 866031	A	19860312	198644	
US 4683708	A	19870804	US 86833330	A	19860225	198733	
CH 667854	A	19881115				198850	
GB 2174058	B	19881221				198851	
DE 3603286	C2	19960208	DE 3603286	A	19860204	199610	

Priority Applications (No Type Date): CH 851172 A 19850315
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3603286	A		8		
DE 3603286	C2		4	B65B-025/14	

Abstract (Basic): DE 3603286 A

Quantities of separate %printed% sheets of paper are wrapped and sealed in envelopes made of plastics film. The individual %sheets% (9) are %transferred% from a first conveyor (3) to a second conveyor (5) which transports them to a chute (11). A swinging arm (13) retains the sheets on the chute surface until the required quantity has been received.

The arm is then swung upwards by a power cylinder (16) so that the stack of sheets falls into the fold of a continuous strip of plastics film (21). A second swinging arm presses and welds together the edges of the plastic film around three sides of the stack of pages. After cutting the envelope from the strip the package of sheets is removed by a conveyor (23).

USE - For packaging small quantities of %printed% sheets. (8pp Dwg.No 1/1)

Abstract (Equivalent): GB 2174058 B

Apparatus for forming foil-wrapped stacks of different sizes from a tontinuous stream of %printed% sheets, the apparatus comprising a conveyor for feeding in the continuous stream of %printed% sheets, said conveyor including a first conveyor portion and a second conveyor portion inter -connected by a path selector arrangement, and a stacking device located below the path selector arrangement, the path selector arrangement being selectively operable to direct %printed% sheets from the first conveyor portion either into the stacking device to form a stack of sheets therein for subsequent foil -wrapping or onto the second conveyor portion, the apparatus further comprising a %first% collecting %station% to which the sheets are fed downwardly from the second conveyor portion such that retaining element which, in one position thereof, prevents the individual sheets from passing through

the station and thereby forms a stack of sheets thereon, a foil covering machine located downstream of the %first% collecting %station% and having a charging opening thereto and being adapted to form a foil loop therein between opposed press plates, and a discharge conveyor located downstream of the foil-covering machine, the arrangement being such that, after a stack of sheets has been formed in the collecting station, the retaining %element% is %moved% from its one position whereby the stack falls through the charging opening into a foil loop between the press plates of the foil-covering machine, the stack is wrapped in the foil loop and the foil -covered stack is deposited onto the discharge conveyor.

Abstract (Equivalent): US 4683708 A

Partially overlapping %printed% sheets which are transported from an inserting or other producing or processing machine are delivered into a stacker which accumulates groups of overlapping sheets and dumps such groups into an intermittently operated wrapping unit where the groups are confined in plastics foils.

The sheets which are intercepted during evacuation of a freshly formed group from the stacker are diverted into an accumulating unit. This gathers the diverted sheets into piles and dumps the piles into a magazine for packing or for admission into one or more additional wrapping units.

ADVANTAGE - Increased operating speed. (6pp)c

30/3,AB/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004640902
WPI Acc No: 1986-144245/198622
XRPX Acc No: N86-106757
Viewing frame for photographic %prints% - has pull-out changer action with sprung claw to separate single sheet
Patent Assignee: ACKERET P (ACKE-I); LICINVEST AG (LICI)
Inventor: ACKERET P
Number of Countries: 020 Number of Patents: 017
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8603031	A	19860522	WO 85EP617	A	19851112	198622	B
AU 8652037	A	19860603				198633	
ZA 8508706	A	19860528				198636	
DE 3441456	A	19860904	DE 3441456	A	19841113	198637	
NO 8602822	A	19861013				198648	
EP 204757	A	19861217	EP 85906057	A	19860707	198651	
GB 2179926	A	19870318	GB 8616720	A	19851105	198711	
ES 8701116	A	19870216	ES 548825	A	19851113	198714	
JP 62500817	W	19870402				198719	
BR 8507043	A	19870310				198720	
DK 8603321	A	19860711				198723	
US 4763429	A	19880816	US 86901532	A	19860711	198835	
GB 2179926	B	19890405	GB 8516720	A	19851112	198914	
CA 1259795	A	19890926				198944	
EP 204757	B	19900307	EP 85906057	A	19851112	199010	
DE 3576417	G	19900412				199016	
US 5044101	A	19910903	US 88224069	A	19880725	199138	

Priority Applications (No Type Date): DE 3441456 A 19841113; US 86901532 A 19860711
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8603031	A	G	38		
Designated States (National): AU BR DK GB JP KR NO US					
Designated States (Regional): AT BE CH DE FR GB IT NL SE					
EP 204757	A	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					
EP 204757	B	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					

Abstract (Basic): WO 8603031 A

The stack of photographic %prints% is held in a two-part viewing frame (12,14). When the %two% %sections% are pulled out, the stack is held in %one% %section%, and %one% sheet is extracted from the stack by a sprung claw (22) and held by a separate grip. When the two parts are pushed together again the single %print% is pushed onto the other side of the stack.

The claw grips the rear edge of the single %print%, while the retaining grip is a spring-loaded element. The springs push the single %print% into the other side of the stack before the stack is pushed back.

ADVANTAGE - Simple, failsafe %print% changing, with automatic operation. (38pp Dwg.No.17/47)

Abstract (Equivalent): EP 204757 B

A device for the cyclic rearrangement of a pile of rectangular or square sheets, especially a pile of photographic %prints%, with a first (12) and a second (14) frame %part% which are %movable% relative to one another and parallel to the main plane of the pile, and with means which, on movement of the frame parts towards and away from one another, remove an individual sheet (188) at one end of the pile and add it to the other end of the pile again, these means comprising: (a) a separating means to separate the individual sheet from the pile, (b) a feeding means to feed sheets to the separating means, (c) a first retaining means to hold the individual sheet in the first frame part and a second retaining means to hold the remainder of the pile in the second frame part, and (d) a guide means to guide the separated individual sheet for the purpose of returning it to the other end of the remainder of the pile, characterised in that, as feeding means, there is provided a transporter (22,404,420) engaging the sheet to be separated at its rear edge in the direction of transport, whereas as the first retaining means there is provided at least one additional element (26/28, 32/80, 506/520, 300/306, 278, 32/288, 274) and the transporter remains in engagement with this edge at least until the first retaining means is effective. (27pp)i

Abstract (Equivalent): GB 2179926 B

Device for the cyclic rearrangement of a pile of rectangular or square sheets, especially a pile of photographic %prints%, with a first and a second frame %part% which may be %moved% relative to one supplied and parallel to the planes of the sheets in the pile, and with means which on movement of the frame parts away from and towards each other, remove an individual sheet at one end of the pile and add it to the other end of the pile, these means comprising: sheet-engaging means to engage a single sheet to be seprated and which, upon relative movement of the frame parts, cooperates with separating means to remove the engaged sheet from the rest of the pile while the latter is being retained by rest-of-the-pile engaging means; retaining means to hold the individual sheet in the first frame part and the remainder of the pile in the other frame part, and a guide means to guide the separated individual sheet for the purpose of returning it to the other end of the remainder of the pile, wherein as the sheet-engaging means there is provided an %edge%-engaging %sheet%-conveying member for engaging the sheet to be separated at the end of the sheet to be separated which trails in relation to the direction of movement the individual sheet has relative to the pile on the removal of the individual sheet from the pile, whereas as the retaining means for the separated sheet there is provided at least one element additional to the %edge%-engaging %sheet%-conveying member.

Abstract (Equivalent): US 5044101 A

The device has a first and a second frame %part% which may be %moved% relative to one another and parallel to the main plate of the pile. It has structure that, on movement of the frame parts backwards and forwards, remove an individual sheet at one end of the pile and add it to the other end of the pile again.

This structure comprises a separating element to separate the individual sheet from the pile, and a feeding element to feed sheets to the separating element. A retaining element holds the individual sheet in the first

US 4763429 A

The feed has a separator to separate the individual sheet from the pile. A feeder feeds sheets to the separators. A retainer holds the individual sheet in the first frame part and the remainder of the pile

in the other frame part.

A guide guides the separated individual sheet for the purpose of returning it to the other end of the remainder of the pile. The feed has a transporter engaging the sheet to be separated at its rear edge in the direction of transport.

USE - For framed photographic %prints%. (23pp)

30/3,AB/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004640898
WPI Acc No: 1986-144241/198622
XRPX Acc No: N86-106753
Viewing frame for stack of photographs - has grip %edge% to drive single %sheets%, with spring support for single sheets
Patent Assignee: ACKERET P (ACKE-I); LICINVEST AG (LICI)
Inventor: ACKERET P
Number of Countries: 020 Number of Patents: 017
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8603027	A	19860522	WO 85EP613	A	19851112	198622	B
AU 8652049	A	19860603				198633	
ZA 8508705	A	19860528				198636	
DE 3441454	A	19861002	DE 3441454	A	19841113	198641	
NO 8602821	A	19861013				198648	
EP 204756	A	19861217	EP 85906054	A	19860707	198651	
GB 2179633	A	19870311	GB 8616716	A	19851113	198710	
ES 8701669	A	19870301	ES 548826	A	19851113	198715	
JP 62500814	W	19870402				198719	
BR 8507051	A	19870310				198720	
DK 8603317	A	19860711				198723	
US 4754564	A	19880705	US 86901533	A	19860711	198829	
GB 2179633	B	19890405	GB 8516716	A	19851112	198914	
EP 204756	B	19900328	EP 85906054	A	19851112	199013	
DE 3576863	G	19900503				199019	
CA 1269529	A	19900529				199028	
US 4986015	A	19910122	US 88212972	A	19880629	199106	

Priority Applications (No Type Date): DE 3441454 A 19841113; US 86901533 A 19860711
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8603027	A	G	32		
Designated States (National): AU BR DK GB JP KR NO US					
Designated States (Regional): AT BE CH DE FR GB IT NL SE					
EP 204756	A	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					
EP 204756	B	G			
Designated States (Regional): AT BE CH DE FR GB IT LI NL SE					

Abstract (Basic): WO 8603027 A
The viewing frame has a rectangular shape with %two% %sections% (12,14) to operate a pull-out action, in which one sheet is separated from the stack and pushed back onto the other side of the stack, when the frame is pushed together again. A sheet separator has a claw edge (460), while a spring (476) presses the %sheet% during the %transfer%.
The two-part spring is pressed by a shaped edge (20) on the return stroke, to push down and allow the single sheet to drop under the stack.
ADVANTAGE - Automatic sheet changing, can handle different thicknesses of sheet. (32pp Dwg.No.1,2/43
Abstract (Equivalent): EP 204756 B

Device for the cyclic rearrangement of a pile of rectangular sheets, especially a pile of photographic %prints%, with a first (12) and a second (14) frame %part% which are %movable% relative to one another and parallel to the principal plane of the pile, and with means which on a withdrawal and an insertion movement of the frame parts remove an individual sheet from one end of the pile and add it to the other end of the pile and add it to the other end of the pile again, which means comprise: (a) a separating means (20/226) for separating the individual sheet (188) from the pile, (b) a feeding means (460) for feeding ''' sheets to the separating means, (c) a first retaining means (460) for holding the individual sheet in the first frame part (12) and a second retaining means (20) for holding the remainder of the pile in the other frame part (14), and (d) a guide means (386) m for guiding the separated individual sheet for the purposethe of returning it to the other end of the remainder of pile, characterised in that the first retaining means is formed by a transporter (460) engaging the rear edge (seen in the transport direction) of the sheet to be separated and that there is side of the pile remote from the transporter a pressure arrangement (476) which over at least a predetermined part of the withdrawal movement stroke, holds the sheet to be separated in engagement with the transporter (488 in Fig. 2-4) but, controlled by the movement of the frame parts, isthe inactivated over the same part of insertion movement stroke and as a result leaves a gap for the return of the ind

Abstract (Equivalent): GB 2179633 B

A device for the cyclic rearrangement of a pile of rectangular or square sheets, especially a pile of photographic %prints%, with a first and a second frame %part% which are %movable% relative to each other and parallel to the planes of the sheets in the pile, and with means which during a withdrawal and an insertion movement of the frame parts remove an individual sheet from one end of the pile and add it to the other end of the pile again, which means comprise: sheet-engaging means arranged to engage a single sheet to be separated and which, upon relative movement of the frame parts, cooperates with plurality means to remove the engaged sheet from the rest of the pile while the latter is being retained by rest-of-the-pile engaging means; retaining means to hold an individual sheet in the first frame part and the remainder of the pile in the other frame part, and a guide means to guide the separated individual sheet for the purpose of returning it to the other end of the remainder of the pile, wherein the retaining means for holding the individual sheet is formed by a sheet-conveying member engaging, in use, that end of the sheet to be separated which trails in relation to the direction of movement the individual sheet has relative to the pile on the removal of the individual sheet from the pile, and there is provided on the side of the pile remote from the sheet-member member a pressure arrangement which, during the outward travel of the frame parts, holds the sheet being separated in engagement with the sheet-conveying member, and wherein means are provided which, controlled by the movement of the frame parts enable the introduction of the individual sheet between the pressure arrangement and the pile.

Abstract (Equivalent): US 4754564 A

A transporter engages the rear edge (seen in the feeding (or transport) direction) of the sheet to be separated. There is provided, on the side of the pile remote from the transporter, a pressure roller which, during the outward travel of the frame parts, holds the sheet being separated in engagement with the transporter.

Guides are provided which, controlled by the movement of the frame parts, enable the introduction of the individual sheet between the

pressure arrangement and the pile.
USE - For handling photographs. (20pp)

30/3,AB/11 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004290460
WPI Acc No: 1985-117338/198520
XRPX Acc No: N85-088267
Conveyor for substrate wafers - has two linear rails and flexible substrate support resting on parallel rail sides
Patent Assignee: USM CORP (USMC); EMHART INC (EMHA)
Inventor: MAXNER R B
Number of Countries: 005 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3439260	A	19850509	DE 3439260	A	19841026	198520	B
FR 2554090	A	19850503				198523	
GB 2148831	A	19850605	GB 8427015	A	19841025	198523	
US 4542820	A	19850924	US 83545671	A	19831028	198541	
GB 2148831	B	19861203				198649	
CA 1215928	A	19861230				198705	
DE 3439260	C2	19931014	DE 3439260	A	19841026	199341	

Priority Applications (No Type Date): US 83545671 A 19831028
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3439260	A		12		
DE 3439260	C2		4	B65G-021/22	

Abstract (Basic): DE 3439260 A

The conveyor comprises two rails (12,14) in linear direction and at equal spacing of their ends. They have sides (22,24) pointing in opposite directions. The conveyor is fitted with a flexible substrate wafer support (32) which circulates continuously round the rails. It is retained in the respective side guides (28,30).

The substrate wafer support cooperates with the side edges (100) and the underface (87) of the substrate (B) for moving the substrate in a linear direction. The substrate support pref. has numerous elements in flexible interconnection, with each element fitted with a section for the support of the lower %edge% (98) of the %substrate%, while a %second% %section% supports the side %edge% of the %substrate%. The support sections and the guides may have the same contour facilitating the linear guiding.

USE - Mounting component modules on %printed% circuits.

.1,2/2

Abstract (Equivalent): GB 2148831 B

A conveyor for transporting a %substrate% having side %edges% and lower surface, and being adapted to be transported in a lineal direction, comprising: a. a pair of track members extending from end to end in said lineal direction, said track members being substantially equally spaced from end to end from one another, each said track member having opposed sides; b. a flexible substrate support means in the form of an endless conveyor; and c. guide means in the opposed sides of each track member receiving said flexible substrate support means for continuous movement about said track members; said substrate support means being adapted to coact with the side edges and lower surface of a substrate on the conveyor to move the substrate in the lineal

direction.

Abstract (Equivalent): US 4542820 A

A pair of parallel tracks each have guides on their opposite sides, a movable substrate support being carried in the guide. The support has angularly disposed projections received in the guide to contrain it in a direction axial to the lineal direction of travel. The support also has angularly disposed projections extending beyond the surface of the tracks that contact the side and lower %edges% of the %substrate% to support the latter.

In this manner, only the %moving% %portions% of the conveyor contact the substrate so that the movement of the substrate is controlled and the substrate is free from any frictional contact with otherstationary portions of the conveyor guide.

ADVANTAGE - Can be used to transport either %printed% circuit board or carrier upon which the board may be held for handling and assembly. (4pp)h

30/3,AB/12 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

04133065
PAPER SHEET DISCHARGE DEVICE FOR %PRINTING% MACHINE

PUB. NO.: 05-124765 [JP 5124765 A]
PUBLISHED: May 21, 1993 (19930521)
INVENTOR(s): MORI TOMIYA
APPLICANT(s): RICOH CO LTD [000674] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 03-286012 [JP 91286012]
FILED: October 31, 1991 (19911031)
JOURNAL: Section: M, Section No. 1476, Vol. 17, No. 497, Pg. 148, September 08, 1993 (19930908)

ABSTRACT

PURPOSE: To provide a paper sheet discharge device which can dispense with a large installation space and by which a paper sheet can be discharged accurately into a narrow space without staining a %printing% image surface of the paper sheet and the tip of the paper sheet by arranging a restraining member in a paper sheet discharge section so as to restrain gas supplied by means of a blowing member from leaking the side surface of the paper sheet

CONSTITUTION: Recess parts 32 are formed on one sides of paper sheet discharge trays 31 of a paper sheet discharge %section% 25, and the %first% and the second restraining plates 35 and 36 are arranged erectly along both the sides, and the base edge of the first restraining plate 35 is pivoted on the front edge of one vertical bracket 30 so as to be opened/closed, and the second restraining plate 36 is formed in width capable of advancing/retreating in the recess %parts% 32, and can %move% to the paper sheet discharge trays 31. As a result, both the restraining plates 35 and 36 form wind shielding plates along both side %edges% of the %paper% %sheet% discharge trays 31, and can restrain air from leaking/diffusing from the side surfaces, and air stream is straightened, and pressure is kept approximately uniform, so that rubbing on a %printing% image surface of a previously fed paper sheet 10, stain on the tip of the moving paper sheet 10 and a drop of the paper %sheet% in an unprescribed %position% are not caused.

30/3,AB/13 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

02400155
INK JET RECORDER

PUB. NO.: 63-017055 [JP 63017055 A]
PUBLISHED: January 25, 1988 (19880125)
INVENTOR(s): FUJIMURA YOSHIHIKO
SAITO KOICHI
AKUTSU HIDEKAZU
INOUE NANAO
HORIE KIYOSHI
APPLICANT(s): FUJI XEROX CO LTD [359761] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 61-159715 [JP 86159715]
FILED: July 09, 1986 (19860709)
JOURNAL: Section: M, Section No. 711, Vol. 12, No. 218, Pg. 74, June 22, 1988 (19880622)

ABSTRACT

PURPOSE: To achieve the improvement of the efficiency of thermal transfer to ink making the best use of the merits of a thermal electrostatic ink jet method, by a method wherein %one% %section% component of a head body is composed of an organic resistant film and besides a current application unit is, in a separation free manner, provided onto its outer face side, or otherwise an electric conduction layer is provided onto its inner face side. Thereby to heat the organic resistant film part between them by application of current according to picture information.

CONSTITUTION: When a switching %element% 26 is %turned% on according to the picture information to be recorded, the signal of picture information is applied to the stylus electrode 21 corresponding to a current application unit 20 and the organic resistant film positioned between the stylus electrode 21 and an electric conductive layer 25 is heated by application of current via a metallic contact layer 28. A corresponding ink unit area turns capable of flying by the decrease in the viscosity and surface tension of ink 3 and the increase in electric conductivity. Besides, when an electrostatic control pulse is applied to the electrode 32 for electrostatic induction of an electrostatic field forming means 6 synchronizing with the drive timing of a thermal signal application means 4, and electrostatic field is formed between the ink 3 facing an electrostatic conductive layer 31 and the electrode 32 for electrostatic induction and a heated ink unit area flies toward a recording %sheet% 5 and %transferred% by adhesion. Then, a ink dot is formed.

32/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012607955
WPI Acc No: 1999-414059/199935
XRPX Acc No: N99-310152
Electrophotographic cartridge for office automation OA apparatus e.g. facsimile, copier, %printer% - has contact surface that touches lower part of partition, and anti-suck back unit that prevents non-transferred toner from flowing reversely to non-transferred toner stripping section
Patent Assignee: COPYER KK (COPY)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11167334	A	19990622	JP 97331486	A	19971202	199935	B

Priority Applications (No Type Date): JP 97331486 A 19971202
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11167334	A		21	G03G-021/18	

Abstract (Basic): JP 11167334 A

NOVELTY - A contact surface (56a) touches the lower part of a partition (38) between the upper and lower line segments of the partition. An anti-suck back unit (56) prevents the non-transferred toner in a non-transferred toner accommodation unit (34) from flowing reversely to a non-transferred toner stripping section. DETAILED DESCRIPTION - Toner is supplied to an electrostatic latent image formed on an image carrier to develop the image which is then transferred to a recording medium. A cleaning unit rakes in the remaining toner on the image carrier to be collected in the non-transferred toner stripping section adjoined to the image carrier and conveyed to the non-transferred toner accommodation unit from both sides of a %sheet% %transfer% toner stripping section on the reverse side of the non-transferred toner %stripping% section. The %flexible% partition has an upper end fixed to the upper wall of the non-transferred toner stripping section, while the lower end bends freely near the lower wall of the %sheet% %transfer% toner %stripping% section. The %flexible% partition is divided into the %two% stripping %sections%. The partition sags toward the non-transferred toner accommodation unit when rotated, so that a tracing crosses the partition. A conveying unit is provided inside the non-transferred toner strip ping section for conveying the collected toner.

USE - For OA apparatus e.g. facsimile, copier, %printer%.

ADVANTAGE - Prevents reverse flow of non-transferred toner using simple component, thereby enabling image carrier to be cleaned stably and preventing non-transferred toner stripping section from being unnecessarily filled with non-transferred toner. DESCRIPTION OF DRAWING(S) - The drawing shows the schematic components of the electrophotographic cartridge. (34) Non-transferred toner accommodation unit; (38) Partition; (56) Anti-suck back unit; (56a) Contact surface.

Dwg.1/32

32/3,AB/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009360631
WPI Acc No: 1993-054109/199307
XRPX Acc No: N93-041277
Strip-cleaning system before %printing% - brings moistened sections of washing cloth in succession into contact with strip
Patent Assignee: BALDWIN GEGENHEIMER GMBH (BALD-N)
Inventor: STANKA H
Number of Countries: 011 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 527316	A1	19930217	EP 92110882	A	19920626	199307	B
DE 4126888	A1	19930218	DE 4126888	A	19910814	199308	
US 5289774	A	19940301	US 92926748	A	19920807	199409	
EP 527316	B1	19951011	EP 92110882	A	19920626	199545	
DE 59203970	G	19951116	DE 503970	A	19920626	199551	
			EP 92110882	A	19920626		

Priority Applications (No Type Date): DE 4126888 A 19910814
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 527316	A1	G	7	B41F-023/00	
Designated States (Regional): AT CH DE ES FR GB IT LI NL SE					
DE 4126888	A1		6	B41F-023/02	
US 5289774	A		6	B41F-035/00	
EP 527316	B1	G	8	B41F-023/00	
Designated States (Regional): AT CH DE ES FR GB IT LI NL SE					
DE 59203970	G			B41F-023/00	Based on patent EP 527316

Abstract (Basic): EP 527316 A
The system cleans strip material before this enters a rotary %printing% press. A washing cloth (20) on one or both sides of the strip (6) is moist in %one% or more %sections% (32), which are brought by a positioning mechanism (34) into contact with it. A transport mechanism (24, 26, 28) brings successive moist sections of the cloth into the working position.
The cloth can be supplied electrically with conductive moistening fluid (42), and it and the %strip% can be %movable% in relation to each other. The cloth can be periodically moved clear of the strip, during which time it is indexed by the transport mechanism.
ADVANTAGE - Long life, and no scratching of strip surface.
Dwg.1/4
Abstract (Equivalent): EP 527316 B
Device for cleaning a web of %printing% paper in a web-fed %printing% press upstream of a %printing% mechanism, containing at least one cleaning element (20, 20/2) on at least one side to be cleaned of the web of %printing% paper (6) in order to clean this side of the web while the cleaning element is in contact with the web of %printing% paper, whereby the cleaning element is a washing cloth (20, 20/2) which is moist at least within a washing-cloth section (32) that can be brought into contact with the web of %printing% %paper% (6); %positioning% means (34; 58, 52, 54; 66, 10) are provided for bringing the damp washing-cloth section (32) into contact with the web of %printing% paper; a transport device (24, 26, 28; 51-54, 56) for the

transport of the washing cloth (20; 20/2) in or contrary to a direction in which the web of %printing% paper (6) is conveyed is provided in order to bring other damp washing-cloth sections (32) in turn into a contactable position opposite the web of %printing% paper (6); and the functions of the positioning means (34; 58, 52, 54; 66, 10) and of the transport device (24, 26, 28; 51-54, 56) are coordinated with one another in such a way that with a view to cleaning the web of %printing% paper (6) said web of %printing% paper (6) slides on the damp washing-cloth section (32) in contact therewith.

Dwg.1/4

Abstract (Equivalent): US 5289774 A

The device for cleaning a sheet prior to being %printed% by a %printing% press comprises a unit for transporting the sheet from an input of the sheet transport unit through the cleaning device to an output of the sheet transport unit leading to the %printing% press. There is a backing cloth disposed on one side of the sheet between the input and output, and positioning members for selectively contacting a section of the backing cloth and causing at least a part of the backing cloth section to come into contact with a portion of the sheet in a contact area. There is a device for transporting the backing cloth such that there is at least a small relative motion between the respective sheet portion and backing cloth section when they are brought into contact with each other by the positioning member.

There are also moistening members for moistening the backing cloth section with an electrically conducting liquid at a location just prior to the contact area, and grounding device for contacting the backing cloth section at a location just after the contact area and for eliminating static electricity from the contact area.

Dwg.1/4

32/3,AB/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003819598
WPI Acc No: 1983-815843/198346
XRPX Acc No: N83-203533
Automatic adjustment of %print% machines with paper manipulators - has paper feed and machine cylinder sensors providing pulses for adjustment circuits
Patent Assignee: LANICEK J (LANI-I); ZVS VU KONCERNOVA (ZVSK-N); ZVS VVU (ZVSV-N)
Inventor: ROTTER J
Number of Countries: 004 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3315961	A	19831110				198346	B
GB 2120602	A	19831207	GB 8312186	A	19830504	198349	
US 4454811	A	19840619	US 83491365	A	19830504	198427	
GB 2120602	B	19850911				198537	
DD 236436	A	19860611				198641	

Priority Applications (No Type Date): CS 823206 A 19820504
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3315961	A		10		

Abstract (Basic): DE 3315961 A

The arrangement for the automatic adjustment of %print% groups by pressure action in %printing% machines with paper manipulators is for automatic operation, so that the machine operator does not require any checking. The paper feed sensor (1) and the sensor (2) for the %rated% angle of %rotation% of the machine cylinder are connected through an AND-unit (3) to an input store (4). Its outlet is connected to a shift register (5), which receives pulses from a sensor (6) synchronous with the revolutions of the %printing% machine part before the paper manipulator. The first circuit (18) for adjusting the %print% groups is connected to the %first% %section% (7) of this shift register.

To the %second% %section% (13) of the shift register, which corresponds to the %position% of the %paper% manipulator in the system of the %print% groups and the supply drums, a second shifter register (14) is connected. This receives pulses from a sensor (15) which are synchronous with the revolutions of the machine part after the paper manipulator. A second circuit (19) for adjusting the %print% groups is connected to its storage sections (17), which correspond to the rate of revolution of the paper feed run-in.

1/1

40/3,AB/1 (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1829489 H.W. WILSON RECORD NUMBER: BAST92012142
%Printing% with electrons
Smith, Ben;
Byte v. 16 (Oct. '91) p. 185-6+
DOCUMENT TYPE: Feature Article ISSN: 0360-5280

ABSTRACT: Part of a special %section% on new %printer% technologies. Electron beam %printing%, also known as ion deposition %printing%, may soon rival laser %printing% in the marketplace. An electron beam %printer% uses an electron cartridge to generate an image on a dielectric drum. The %printer% develops the image with magnetic toner, %transfers% it to %paper% by cold-pressure fusing, and then cleans and neutralizes the drum in preparation for the next image. Electron beam %printing% is simpler and more dependable than laser %printing%, requiring fewer %moving% %parts% and less maintenance. Initial costs are higher, however, primarily because of the expense of making the dielectric drum, and %print% quality is inferior. Prices for electron beam %printers% currently range from about $10,000 to about $400,000. Low end electron beam %printers% may come down to about $3,000 or $4,000 within a year.

40/3,AB/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014908503
WPI Acc No: 2002-729209/200279
XRPX Acc No: N02-575515
Multicolored serial type recording device e.g. %printer%, copier, performs recording of image on rear %portion% of sheet, by %moving% carriage along upstream direction of sheet conveyance direction
Patent Assignee: CANON KK (CANO)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2002301847	A	20021015	JP 2001107157	A	20010405	200279	B

Priority Applications (No Type Date): JP 2001107157 A 20010405
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2002301847	A		6	B41J-025/34	

Abstract (Basic): JP 2002301847 A
Abstract (Basic):
NOVELTY - A carriage (7) is moved perpendicularly with respect to a sheet conveyance direction and a recording head (6) records an image on a sheet (S), during usual recording. When the head reaches the %sheet% %edge% portion, the recording is carried out at the rear %portion% of sheet, by %moving% the carriage along upstream direction of sheet conveyance direction.
USE - Multicolored serial type recording device e.g. %printer%, copier, facsimile for use with word processor, computer.
ADVANTAGE - Enables high accuracy %printing% in rear end of

recording sheet, since the float of rear end of recording sheet is restrained.

DESCRIPTION OF DRAWING(S) - The figure shows a side view of %printing% %section% of recording device.

Recording head (6)
Carriage (7)
Sheet (S)
pp; 6 DwgNo 1/10

40/3,AB/3 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014287343
WPI Acc No: 2002-108044/200215
XRPX Acc No: N02-080470
%Printer% unit installed in transaction device e.g. automatic teller machine, has moving frame being rotatably supported on base frame such that upper %portion% of %moving% frame is inclined to front of transaction device
Patent Assignee: SEIKO EPSON CORP (SHIH); ARUGA K (ARUG-I); SHIKANO Y (SHIK-I); TAKIZAWA H (TAKI-I)
Inventor: ARUGA K; SHIKANO Y; TAKIZAWA H
Number of Countries: 031 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 1170143	A1	20020109	EP 2001113645	A	20010619	200215	B
CA 2350401	A1	20011228	CA 2350401	A	20010613	200215	
US 20020018685	A1	20020214	US 2001880096	A	20010614	200219	
JP 2002011917	A	20020115	JP 2000195013	A	20000628	200220	
CN 1332086	A	20020123	CN 2001121066	A	20010614	200231	
KR 2002000713	A	20020105	KR 200133368	A	20010614	200244	

Priority Applications (No Type Date): JP 2000195013 A 20000628
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1170143	A1	E	17	B41J-029/02	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
CA 2350401	A1	E		B41L-021/12	
US 20020018685	A1			B41J-011/46	
JP 2002011917	A		8	B41J-029/00	
CN 1332086	A			B41J-003/44	
KR 2002000713	A			B41J-029/00	

Abstract (Basic): EP 1170143 A1
Abstract (Basic):

NOVELTY - A moving frame (26) is rotatably supported on a base frame (24) such that the upper %portion% of the %moving% frame is inclined to the front of the transaction device. The moving frame has a bearing (40) with an acceptance port (40b) for supporting and receiving a shaft of rolled paper, a %print% mechanism (46), an insertion slot (44) for guiding the %paper% %edge% to the %print% mechanism, and a discharge port (50a) for discharging paper.

USE - %Printer% unit installed in transaction device such as automatic teller machine (ATM), various ticket dispensers, reservation machines of concerts, selling terminals of games, music software,

banks, stations, airports, convenience stores, etc.
ADVANTAGE - Since the moving frame is inclined forward relative to the transaction device, the workability for replacing rolled paper, and maintaining and inspecting the %printer% unit are improved greatly.
DESCRIPTION OF DRAWING(S) - The figure shows a side view of the %printer% unit.
Base frame (24)
Moving frame (26)
Bearing (40)
Acceptance port (40b)
Insertion slot (44)
%Print% mechanism %section% (46)
Discharge port (50a)
pp; 17 DwgNo 4/10

40/3,AB/4 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013860493
WPI Acc No: 2001-344705/200137
XRPX Acc No: N01-249629
Phase difference detection device for %printing% press uses relatively rotatable detection cogwheels on intermediate shaft engaged by drive cogs associated with storage drum and turning drum of %sheet% %transfer% device
Patent Assignee: RYOBI KK (RYOB)
Inventor: KOMORIYAMA T
Number of Countries: 002 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 10054512	A1	20010523	DE 1054512	A	20001103	200137	B
JP 2001129973	A	20010515	JP 99313473	A	19991104	200143	

Priority Applications (No Type Date): JP 99313473 A 19991104
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 10054512	A1		10	B41F-013/004	
JP 2001129973	A		6	B41F-033/14	

Abstract (Basic): DE 10054512 A1
Abstract (Basic):
NOVELTY - The phase difference detection device uses an intermediate shaft (33) supported for %rotation% by a stationary %part% of the %printing% press, an attached detection cogwheel (31) and a second detection cogwheel (32) which can rotate relative to the intermediate shaft, respectively engaged by a drive cog (34,35) associated with a rear section (2b) of a storage drum and a turning drum (3) of a %sheet% %transfer% device.
USE - The device is used for detecting the rotary phase difference between 2 drums of a %sheet% %transfer% device for feeding %sheets% to a %printing% %station% in a %printing% press.
ADVANTAGE - The phase difference detection device is easily fitted to an existing %printing% press.
DESCRIPTION OF DRAWING(S) - The figure shows a schematic side view of a phase difference detection device.
Rear section of storage drum (2b)
Turning drum (3)

Detection cogwheel fixed to intermediate shaft (31)
Detection cogwheel rotating relative to intermediate shaft (32)
Intermediate shaft (33)
Drive cogs (34,35)
pp; 10 DwgNo 1/5

40/3,AB/5 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010161435
WPI Acc No: 1995-062688/199509
XRPX Acc No: N95-049951
Appts. for automatically mounting electronic components on %printed% circuit board - has adsorbent nozzles positioning components onto PCB for mounting and rotating to correct for component position at pick-up station
Patent Assignee: SANYO ELECTRIC CO LTD (SAOL)
Inventor: KANO Y; MOHARA M
Number of Countries: 006 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 637199	A1	19950201	EP 94303613	A	19940520	199509	B
JP 6334391	A	19941202	JP 93124320	A	19930526	199509	
US 5544411	A	19960813	US 94246760	A	19940520	199638	
EP 637199	B1	19970129	EP 94303613	A	19940520	199710	
DE 69401622	E	19970313	DE 601622	A	19940520	199716	
			EP 94303613	A	19940520		

Priority Applications (No Type Date): JP 93124320 A 19930526
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 637199	A1	E	14	H05K-013/04	
JP 6334391	A		7	H05K-013/04	
US 5544411	A		12	B23P-019/04	
EP 637199	B1	E	17	H05K-013/04	
Designated States (Regional): DE FR GB IT					
DE 69401622	E			H05K-013/04	Based on patent EP 637199

Abstract (Basic): EP 637199 A
The appts. mounts chip-like electronic components from a feeder at a component adsorbing station (110) onto predetermined positions on a PCB (6) held at a component mounting station (100). A nozzle (14) adsorbs or releases the components (5) one by one. A nozzle head motor (31) includes a stator (30A) and a rotor (32) having at least one nozzle.
The motor corrects for component positioning determined at a component recognising station by rotating the nozzle within a plane perpendicular to its axis. A movable base (13) sequentially advances the nozzle head (15) towards the stations. An head up/down mechanism (45,46) moves it towards an adsorbing or releasing position.
ADVANTAGE - Provides accurate component positioning with minimised production time.
Dwg.3/6
Abstract (Equivalent): EP 637199 B
An automatic electronic parts-mounting apparatus for mounting electronic parts (5) at predetermined %positions% on a %printed%

%substrate% (6), said apparatus comprising: a parts-supply station 9110) for receiving and holding the electronic parts (5), a nozzle head (15); at least two sucking nozzles (14) on the nozzle head (15) for sucking up the electronic parts (5), one by one at the parts-supply station (110); a sucking mechanism (29a, 29b) for controlling the sucking up or releasing of the electronic pads (5) to or from a selected one of the sucking nozzle (14); a parts-recognizing unit (16) for recognizing the state of the electronic parts (5) being sucked up by the selected sucking nozzle (14) at said parts-supply station (110); a parts-mounting station (100) for holding the %printed% substrate (6) on which the electronic parts sucked up by the sucking nozzles (14) are to be mounted; the nozzle head (15) having an electrical nozzle-rotating motor (31) for correcting the position of the sucked up electronic %parts% (5) by %rotating% said sucking nozzles (14) within a plane perpendicular to the nozzle axes of said sucking nozzles (14) in accordance with the sucked up state of the electronic parts (5) recognized by said parts-recognizing unit (120), the electrical nozzle-rotating motor (31) including a stator (30A) and a rotor (32); a movable base (23) on which is mounted said nozzle head (15) for sequentially moving said nozzle head (15) toward said stations (110, 100); and a head up/down mechanism (20, 21, 24) for vertically moving said nozzle head (15) as said nozzle head (15) is %moved% toward said %parts%-supply station (110) or said parts-mounting station (100).

Dwg.1/6

Abstract (Equivalent): US 5544411 A

An automatic electronic parts-mounting apparatus for mounting electronic parts supplied from a parts feeder at predetermined %positions% on a %printed% %substrate%, said apparatus comprising:

an adsorptive nozzle for adsorbing the electronic parts one by one;

an adsorptive mechanism for adsorbing and releasing the electronic parts to and from the adsorptive nozzle;

a parts-adsorbing station for holding the electronic parts supplied from the parts feeder;

a parts-recognizing unit for recognizing the state of the electronic parts being adsorbed by the adsorptive nozzle in said parts-adsorbing station;

a parts-mounting %station% for holding the %printed% substrate on which the electronic parts adsorbed by the adsorptive nozzle are to be mounted;

a nozzle head having a nozzle-rotating motor for correcting the position of the adsorbed electronic %parts% by %rotating% said adsorptive nozzle within a plane being perpendicular to a nozzle axis of said adsorptive nozzle in accordance with the adsorbed state of the electronic parts recognized by said parts-recognizing unit, the nozzle-rotating motor including a stator and a rotor, wherein at least two adsorptive nozzles are provided at the outer periphery of the rotor, and each adsorptive nozzle is capable of moving toward and away from the rotor;

a movable nozzle base containing said nozzle head for sequentially moving said nozzle head toward said stations; and

a head up/down mechanism for vertically moving said nozzle head, said head up/down mechanism moved to a predetermined position toward an adsorbing position or a releasing position of the electronic parts.

Dwg.3/6

40/3,AB/6 (Item 5 from file: 350)

008442803
WPI Acc No: 1990-329803/199044
XRPX Acc No: N90-252475
Opening and closing mechanism for sheet cleaning dust brush - separates brushes when cover is opened allowing adjustment or clearing of jams
Patent Assignee: ASAHI KOGAKU KOGYO KK (ASAO)
Inventor: NEGORO I
Number of Countries: 005 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2230738	A	19901031	GB 9092974	A	19900425	199044	B
DE 4013675	A	19901108	DE 4013675	A	19900427	199046	
FR 2646529	A	19901102				199051	
CA 2015176	A	19901027				199103	
GB 2230738	B	19930428	GB 909297	A	19900425	199317	
US 5285239	A	19940208	US 90514593	A	19900426	199407	
DE 4013675	C2	19951005	DE 4013675	A	19900427	199544	

Priority Applications (No Type Date): JP 89U50010 U 19890427
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5285239	A		9	G03G-021/00	
DE 4013675	C2		10	B41J-029/12	
GB 2230738	B			G03G-021/00	

Abstract (Basic): GB 2230738 A
The opening and closing mechanism, moves a pair of sheet dust brushes between one position at which the pair of brushes are brought into contact with each other and a second position at which they are brought out of contact out. The mechanism is adapted to be positioned in a device utilizing at least fan-folded sheet arranged to be fed between the pair of sheet dust brushes.
The opening and closing mechanism is constituted to located the pair of sheet dust brushes at the second position in case that a predetermined portion of the device is opened. The predetermined portion comprises an upper cover member, or a panel member adjacently provided with the pair of sheet dust brushes.
ADVANTAGE - Ease of adjustment. (22pp Dwg.No.1/5)
Abstract (Equivalent): DE 4013675 C
A %printer% for continuous feed paper (4) has the paper input slot fitted with a pair of bristle rollers (51,52) between which the paper is fed to remove any dust. The %printer% housing is split into upper- and lower sections which can be separated to provide access to the interior, eg. to load a fresh paper feed. The two rollers are mounted on separate parts of the housing to separate when the housing is opened.
Each roller is mounted inside a support housing with a fixed blade to remove any collected dust. The rollers are rotated in opposite directions to brush against the paper feed direction. When the %printer% housing is opened a spring loaded arm (61) opens the spacing between the rollers.
USE/ADVANTAGE - Electrophotographic %printers%. Removes unwanted dust prior to %printing%, does not impede paper loading operation.
Dwg.1/5
Abstract (Equivalent): GB 2230738 B

A fan fold sheet dust removal apparatus comprising:- a casing having a defined internal feeding path for fan fold sheet and comprising a lower section connected to an upper section which is movable between a closed position and an opened position whereby said feeding path is accessible in said opened position; a housing mounted to said lower section of the casing adjacent the entrance of said feeding path and having a first housing %portion% %rotatably% %mounting% a first %sheet% dust brush and a second housing %portion% %rotatably% %mounting% a second %sheet% dust brush so that, in use, fan fold sheet passes between the first and second sheet dust brushes, and wherein the first housing portion and the second housing portion are connected together to be moved between a separated open position and a dust removing closed position in correspondence with the opened and closed position respectively of said upper section of the casing; and means for rotating the brushes in respective directions opposite to the direction of movement of the sheet along said feeding path.

Abstract (Equivalent): US 5285239 A

In a %printer% using continuous form sheet, e.g. fan-folded sheet to %print% data from a computer, a pair of sheet dust brushes (51,52) are mounted in brush holders (53A,53B), one of which (53B) is biased to the base (53A) by a spring. A lever (6) formed by an operation arm (61) for rocking the holder (53B) and an operation arm (62) driven by the lever operation %section% (22) of the %printer% cover moves brushes apart when the cover (2) is opened.

ADVANTAGE - Brushes are automatically sepd. for removal of jammed sheets.

Dwg.1/5

40/3,AB/7 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

008420074
WPI Acc No: 1990-307075/199041
XRPX Acc No: N90-236072

Paper feed system for impact line %printer% - has pin feed belt passing around upper and lower feed mechanisms with phasing adjustment and entry and exit ramps

Patent Assignee: PRINTRONIX INC (PRIN-N)
Inventor: BARRUS G B; EMENAKER L J
Number of Countries: 005 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 391693	A	19901010	EP 90303621	A	19900404	199041	B
CA 2010208	A	19901007				199101	
US 5354139	A	19941011	US 89335104	A	19890407	199440	
EP 391693	B1	19960117	EP 90303621	A	19900404	199608	
DE 69024836	E	19960229	DE 624836	A	19900404	199614	
			EP 90303621	A	19900404		

Priority Applications (No Type Date): US 89335104 A 19890407
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 391693	A				
Designated States (Regional): DE FR GB					
US 5354139	A		25	B41J-011/26	
EP 391693	B1	E	29	B41J-011/30	

Designated States (Regional): DE FR GB
DE 69024836 E B41J-011/30 Based on patent EP 391693

Abstract (Basic): EP 391693 A

The line %printer% has paper feed mechanisms on each side of the paper and extending above and below the platen to allow for bidirectional %printing%. The paper is driven by pins mounted on endless toothed belts that pass around the upper and lower mechanisms. Phasing or pitch adjustment between the upper and lower portions is accomplished by eccentric hub or by a cam and belt tensioner.

The opposite portions of each paper feed mechanism terminate in ramps which are angled to facilitate withdrawal of pins from apertures at the %edges% of the %print% %paper%.

ADVANTAGE - Bidirectional, close control of paper, %prints% on first and last lines. (30pp Dwg.no. 1/21)

Abstract (Equivalent): EP 391693 B

A paper feed mechanism for feeding a length of paper through a %print% %station%, the paper feed mechanism including an endless paper feed member (78) movable along an endless path of movement for engaging a length of paper to feed the length of paper through a %print% %station%, the paper feed member (78), in use, engaging two portions of the length of paper at points adjacent the %print% %station% and on opposite sides thereof, the paper feed mechanism including means (54, 56) engageable with the feed member (78) at a location between the points at which it engages the length of paper on the opposite sides of the %print% %station% for varying the length of the endless path of movement followed by the paper feed member (78) therebetween; and being characterised in that it further comprises means (108, 110, 112, 116) within the endless path of movement for resiliently biassing and thereby tensioning the paper feed member (78); the means for resiliently biasing acting independently of the means for varying the length of the endless path of movement followed by the paper feed member.

Dwg.1/21

Abstract (Equivalent): US 5354139 A

The paper feed for feeding a length of paper through a %print% %station% comprises endless paper feed for engaging a length of paper to feed the length of paper through a %print% %station%. An endless path of movement for the paper feed includes a pair of side portions disposed adjacent the %print% %station% on opposite sides of the %print% %station%.

A tensioner is provided within the endless path of movement for resiliently biasing and tensioning the endless paper feed. For varying the length of the endless path of movement between the pair of side %portions% a %rotatable% cam has a pivotable lever arm assembly engaging the cam and a pulley rotatably mounted on the pivotable lever arm assembly and engaging the endless paper feed.

USE/ADVANTAGE - For impact %printers%, with accurate %paper% %positioning%.

Dwg.2/21

40/3,AB/8 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007637159
WPI Acc No: 1988-271091/198838

XRPX Acc No: N88-205840
Cassette-drawer sheet feeder for compact %printer% - uses indexing wall transverse to drawer path to position inserted stack between transport member

Patent Assignee: EASTMAN KODAK CO (EAST)
Inventor: GRAYSON P T; LEHMAN D S; PIATT J M; GRAYSON T P; LEHMAN S D; PIATT M J

Number of Countries: 006 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8806528	A	19880907	WO 88US449	A	19880219	198838	B
US 4783669	A	19881108	US 8720409	A	19870302	198847	
EP 305448	A	19890308	EP 88902322	A	19880219	198910	
JP 1502573	W	19890907	JP 88502294	A	19880219	198942	
CA 1292484	C	19911126				199203	
EP 305448	B1	19920708	EP 88902322	A	19880219	199228	
			WO 88US449	A	19880219		
DE 3872625	G	19920813	DE 3872625	A	19880219	199234	
			EP 88902322	A	19880219		
			WO 88US449	A	19880219		

Priority Applications (No Type Date): US 8720409 A 19870302
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8806528	A	E	29		
Designated States (National): JP					
Designated States (Regional): DE FR GB					
US 4783669	A		14		
EP 305448	A	E			
Designated States (Regional): DE FR GB					
EP 305448	B1	E	16	B41J-011/58	Based on patent WO 8806528
Designated States (Regional): DE FR GB					
DE 3872625	G			B41J-011/58	Based on patent EP 305448 Based on patent WO 8806528

Abstract (Basic): DE 3872625 G

The sheet supply station includes a drawer, with a face (2c) and a bottom (42), which is constructed to support a sheet stack and is slidably mounted for movement in and out of the wall of the %printer%.

The drawer is moved between a withdrawn position enabling stack insertion and a closed position wherein the drawer face is approximately flush with the rear wall.

Side guides (45) engage and centre a sheet stack, which is supported on the bottom wall, during its movement into the housing from the withdrawn drawer position. An indexing wall (30) is located transverse to the drawer path to accurately position an inserted stack beneath the feed/transport member.

Sheet buckling structures (31) are provided to reliably feed single sheets sequentially from the top of a sheet stack. USE/ADVANTAGE - With perso

WO 8806528 A

The sheet supply station includes a drawer, with a face (2c) and a bottom (42), which is constructed to support a sheet stack and is slidably mounted for movement in and out of the wall of the %printer%. The drawer is moved between a withdrawn position enabling stack insertion and a closed position wherein the drawer face is approximately flush with the rear wall. Side guides (45) engage and centre a sheet stack, which is supported on the bottom wall, during its

movement into the housing from the withdrawn drawer position.
An indexing wall (30) is located transverse to the drawer path to accurately position an inserted stack beneath the feed/transport member. Sheet buckling structures (31) are provided to reliably feed single sheets sequentially from the top of a sheet stack.
USE/ADVANTAGE - With personal computer and word processor. Mechanically simple in construction.
3/9

Abstract (Equivalent): EP 305448 B
A %printer% of the type having a housing (2), including top, bottom and side walls, a sheet stack holder (3) insertable into said housing to %position% the top %sheets% of the stack (S) at a feed location and a cylindrical platen (8) %rotatably% mounted within a %portion% of said housing and adapted to sequentially feed said top sheets from said feed location to a %print% zone, characterized in that (a) said insertable sheet holder comprises a drawer means (3), having a drawer face (2c) and a drawer bottom (42), constructed to support said sheet stack for slidable movement in and out of the rear side wall of said housing; and (b) said housing comprises means (28) for urging said supported sheet stack into top sheet feeding engagement with said feed %print% platen (8), side means (45) coupled to its interior side walls for engaging and centering the sides of said sheet stack supported on said drawer bottom during drawer movement into said housing and an indexing wall (30) coupled to said housing and located transverse to the drawer path to accurately %position% said supported %sheet% stack in said feed location beneath said %print% platen member (8).
(Dwg.2/9

Abstract (Equivalent): US 4783669 A
The sheet supply %station% for a compact %printer% has a housing, a feed/transport %element% which is %rotatably% mounted within a forward portion of the housing and is adapted to sequentially move sheets from a supply location at the bottom of the housing, through the %print% zone and out an egress in the upper surface of the housing. The sheet supply station comprises a drawer, which supports a sheet stack and can move in and out of the rear wall of the %printer% between a withdrawn position enabling stack insertion. Side guides for engage and centre a sheet stack, which is supported on the bottom wall. An indexing wall is located transverse to the drawer path to accurately position an inserted stack beneath the feed/transport element. Sheet buckling structures are provided for reliably feeding single sheets sequentially from the top of a sheet stack. ADVANTAGE - Personal computers. Less prone to jams and misfeeds.
(14pp

40/3,AB/9 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007431761
WPI Acc No: 1988-065696/198810
XRPX Acc No: N88-049760
Multi-colour or full-colour electrophotographic %printer% - uses single endless film recording belt which is conveyed in bent and folded path
Patent Assignee: HITACHI LTD (HITA)
Inventor: ANZAI M; HOSHI N
Number of Countries: 009 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 258863	A	19880309	EP 87112692	A	19870831	198810 B
US 4769672	A	19880906	US 8791754	A	19870901	198838
EP 258863	B	19911127				199148
DE 3774804	G	19920109				199203

Priority Applications (No Type Date): JP 86203702 A 19860901
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 258863	A	E	5		
Designated States (Regional): CH DE FR GB IT LI NL SE					
US 4769672	A		4		
EP 258863	B				
Designated States (Regional): DE FR GB IT NL					

Abstract (Basic): EP 258863 A

Conveyor rollers are disposed along the outer peripheral surface of a cylinder having one of its ends open. A guide having a diameter smaller than that of the cylinder is disposed concentrically with the cylinder. The %printing% process in the second, third and fourth portions is sequentially deviated by the image formation time. Thus toner images formed after the paper has passed sequentially through the transfer units overlap exactly with one another.

The recording member (10) is shaped in an endless belt-like form and is conveyed in a bent and folded path. Several %printing% portions (1-4) are positioned along the outer surface of the belt. Transfer units (1-5,2-5,3-5,4-5) move linearly along the upper part of the path.

USE - Multi-colour or full-colour electrophotographic %printing%.

1/3

Abstract (Equivalent): EP 258863 B

An electrophotographic %printing% apparatus for sequentially developing an electrostatic latent image, said apparatus comprising a recording member (10) on which surface a latent image is formed by toners of different colours and transferring sequentially the resulting toner images to recording paper in superposition to obtain a multi-colour or full-colour image, wherein said recording member is shaped in an endless belt-like form being conveyed in a bent path and a plurality of %printing% %stations% (1-4) are disposed along the outer peripheral surface of said belt-like recording member, characterised in that said belt-like recording member is conveyed along a folded path, each %printing% %station% (1-4) includes exposure/recording and developing means, and there are disposed transfer units (1-5, 2-5, 3-5, 4-5) respectively arranged in the %moving% direction of said %portion% belt-like recording member after every %printing% %station% (1-4) for sequentially transferring the resulting toner images to recording paper (12) moving linearly along the upper part of said path. (6pp)

Abstract (Equivalent): US 4769672 A

A recording member (10) consists e.g. of one endless film-like belt that is folded in a recessed shape. A number of %printing% portions (1-4) are disposed in such a manner as to face the outer peripheral surface of the belt. The recording member is developed simultaneously by toners having different colours. The toner image is %transferred% to recording %paper% by %transfer% units that are disposed in such a manner as to face the upper projecting portion of the belt while interposing between them the recording paper that moves linearly along the upper part of the %printing% portions (1-5, 2-5, 3-5, 4-5).

USE/ADVANTAGE - Electrophotographic process for multi-colour or

full-colour %printing% using simple photosensitive drum, in same period of time as that required for monochromatic %printing%.
(4pp

40/3,AB/10 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004365003
WPI Acc No: 1985-191881/198532
Related WPI Acc No: 1991-195362
XRPX Acc No: N85-143981
Paper loading device for %printer% - has paper bail roller supported by arms for moving roller away from platen during loading
Patent Assignee: TOKYO ELECTRIC CO LTD (TODK)
Inventor: KAWAGUCHI K
Number of Countries: 006 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 150980	A	19850807	EP 85300438	A	19850123	198532	B
US 4693621	A	19870915	US 86891426	A	19860804	198739	
CA 1230352	A	19871215				198802	
EP 150980	B	19920311	EP 85300438	A	19850123	199211	
DE 3585546	G	19920416				199217	

Priority Applications (No Type Date): JP 8416870 A 19840201; JP 8411622 A 19840125
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 150980	A	E	31		
Designated States (Regional): DE FR GB SE					
EP 150980	B		13		
Designated States (Regional): DE FR GB SE					

Abstract (Basic): EP 150980 A
The device has a platen rotated by a feed motor cooperating with a reciprocating pinch roller. Left and right hand paper bail arms support a paper roller and are acted on by an over-centre spring and an electromagnetically operated %element%, to %move% the paper roller away from the platen automatically upon loading. After loading the paper, the paper roller is returned to a position adjacent the platen.
Pref. the over-centre spring is provided by a toggle spring, and the electromagnetic actuation is provided by a paper feed switch controlling the feed motor.
USE/ADVANTAGE - For inserting cut sheets of paper between platen and %printing% %station% without requiring manual movement of paper roller.
Dwg.0/6
Abstract (Equivalent): EP 150980 B
A paper loading device for a %printer%, comprising: a platen (2) connected to be rotated by a feed motor to feed paper; pinch rollers (12, 13) mounted for movement towards and away from said platen; a pair of left and right %paper% bail arms (20) %mounting% a %paper% bail roller (19) for rotation in opposing relation to said platen and mounted for pivotal motion to move said paper bail roller towards and away from said platen; an over-centre spring means (24) for urging said paper bail arms towards and away from said platen on opposite sides of

a neutral %position% of said %paper% bail arms; an operating member (26) for controlling movement of said bail arms; and an electromagnetic actuating means (29) displacing said operating member to provide movement of said paper bail arms; characterised in that said operating member (26) comprises a stop (34) to permit and constrain manual movement of the bail arms for release of pressure by the bail roller (19) on the platen (2) and is shaped to move the bail roller away from the platen on actuation of said electromagnetic means; and the device further comprises an operating lever (17) which is shaped in relation to the shape of said operating member so that manual operation of said lever causes movement of the bail arms away from the platen and at the same time causes movement of the pinch rollers out of contact with said platen. (13pp)e

Abstract (Equivalent): US 4693621 A

When paper is to be loaded onto a platen, in response to operation of a button or a lever with %paper% set in %position%, the platen driven to cause the paper to be loaded and upon such loading of the paper, a paper bail roller is automatically moved away from the platen. After loading of the paper, the roller is returned to a position adjacent the platen.

An electromagnetic actuator pref. displaces the operating member to press against the bail arms to move the roller away from the platen. A stopper for the bail arms is provided at a second position on the opposite side of the neutral position from the platen side, the arms being urged toward and maintained in the second position by a toggle spring when the arms are manually operated to move the roller away from the platen. (14pp)v

40/3,AB/11 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

002088489

WPI Acc No: 1979-A8375B/197904

Cylindrical platen type %printer% paper feeder - has circumferential arranged guide pins in platen cooperating with perforations in %sheet% %edges%

Patent Assignee: HARRIS CORP (HARO)

Inventor: WEBSTER L B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 4133613	A	19790109				197904	B

Priority Applications (No Type Date): US 78881059 A 19780224; US 76711598 A 19760804

Abstract (Basic): US 4133613 A

Apparatus for feeding sheet material past a %printing% %station%, has a cylindrical platen with circumferentially arranged guide pins which cooperate with corresponding perforations along the %edges% of the %sheet% material to provide positive feeding and accurate alignment of the sheet material. The %printing% %station% is disposed immediately adjacent the platen and serves to imprint the desired information on the sheet material.

The guide pins, which would otherwise interfere with the operation of the %printing% %station%, are retracted into the platen when passing

the %printing% %station% during the rotation of the platen. This is done by rotating the platen about a fixed, coaxially disposed cam. The pins are radially spring biased against the cam so that the amount of radial extension of each of the pins from the outer surface of platen is determined by the surface contour of the cam. The cam is structured to cause the extension of each pin during most of the rotation of the platen, and allows retraction during the %portion% of the %rotation% in which that pin passes the %printing% %station%.

40/3,AB/12 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

001997019
WPI Acc No: 1978-10032A/197805
Apparatus for %printing% green ceramic sheet - automatically aligning %sheet% on carrier and %transferring% to %printing% %station%
Patent Assignee: IBM CORP (IBMC)
Inventor: CADWALLADE R H; DARVESBORN Y; GASPARRI A S
Number of Countries: 004 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 4068994	A	19780117				197805	B
DE 2738989	A	19780518				197821	
FR 2375797	A	19780825				197839	
GB 1539369	A	19790131				197905	
DE 2738989	C	19851205				198550	

Priority Applications (No Type Date): US 76740707 A 19761111

Abstract (Basic): US 4068994 A
An appts. for %printing% a paste pattern on a green ceramic sheet, the sheet is aligned on a carrier by engaging apertures in the sheet which is supported on a light pervious element supported on a light emitting %element%. The carrier is %moved% horizontally from a sheet loading station to a position beneath a %printing% %station% and then raised vertically to a %printing% position beneath a stencil.
Used in %printing% conductive patterns on ceramic green sheet. The sheet is precisely aligned on a carrier and automatically transferred to the %printing% %station%.

40/3,AB/13 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX

001236965
WPI Acc No: 1975-C0749W/197508
Selective matrix-type %printer% using single dot-forming wire element - which moves in figure-8 path and is energized at appropriate times
Patent Assignee: IBM CORP (IBMC)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 1384184	A	19750219				197508	B

Priority Applications (No Type Date): US 72240113 A 19720331

Abstract (Basic): GB 1384184 A

The %printer% includes a drive system for transporting a document through a %printing% %station% while a single dot-forming wire element at each possible character position produces the character-forming dots. The wire elements are carried by a %print% head which is driven by cams to cause each %element% to %move% in a closed figure eight path within the area of a character position.

The end of the wire remote from the document is connected to the armature of an electromagnetic actuator with the actuator being energized at appropriate times to produce the desired character at each character %position%. The %document% consists of a web with perforations disposed along each edge so that it can be driven by sprocket wheels of the mechanism to permit travel of the document to by synchronised with the movements of the %print% elements each in its closed path.

40/3,AB/14 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

06136623
%PRINTER% MOUNTING BASE

PUB. NO.: 11-078163 [JP 11078163 A]
PUBLISHED: March 23, 1999 (19990323)
INVENTOR(s): NAKAYAMA TAKUMI
APPLICANT(s): PFU LTD
APPL. NO.: 09-251109 [JP 97251109]
FILED: September 16, 1997 (19970916)

ABSTRACT

PROBLEM TO BE SOLVED: To obtain a base for mounting a %printer% in which a desired continuous document can be set without replacing a sheet box by installing a turntable for setting the continuous %document% on the %mounting% base such that the turntable can be rested at a plurality of specified positions relative to the installing position of the %printer%.

SOLUTION: The %printer% mounting base 1 comprises a mounting base 12 and a base part 13 coupled integrally through a shaft 11 wherein the mounting base 12 is installed to correct the position of a %printer% 3 through a %printer% position holding %section% 4. The base %part% 13 comprises a %movable% caster 15, and an adjuster 16 for blocking the movement thereof. The %printer% mounting base 1 comprises a turntable 2 carried rotatably on the shaft 11 such that rotational motion thereof is blocked at a plurality of specified positions by the turntable position holding section 4 and a sliding member 14 for facilitating the rotational motion is provided between the turntable 2 and the base part 13.

40/3,AB/15 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

04237393

%PRINTING% PRESS

PUB. NO.: 05-229093 [JP 5229093 A]
PUBLISHED: September 07, 1993 (19930907)
INVENTOR(s): SUZUKI KENJI
BEPPU NORIO
ABE ISAO
APPLICANT(s): HITACHI TECHNO ENG CO LTD [419434] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 04-031907 [JP 9231907]
FILED: February 19, 1992 (19920219)
JOURNAL: Section: M, Section No. 1527, Vol. 17, No. 679, Pg. 59, December 14, 1993 (19931214)

ABSTRACT

PURPOSE: To provide a lightweight small-sized %printing% press capable of shortening a tact without being restricted by a roll filter.

CONSTITUTION: A receiving stand 5 equipped with a delivery bobbin 6, a taking-up bobbin 7 and a roll filter 8 is moved in respective directions X, Y, Z, .theta. by an XYZ.theta. table 10 and a %printing% means can be moved between a %printing% %station% A and a retraction station B and, at the time of %printing%, the %printing% means is moved to the %printing% %station% A to fill the through-holes of the %substrate% 1 %positioned% on the %substrate% placing surface of the receiving stand 5 with paste. As a result, since the %printing% means is moved between the %printing% %station% A and the retraction position B and it is unnecessary to move the receiving stand 5 and the roll filter 8 between both stations, the %moving% %part% can be reduced in its wt. and a tact can be shortened.

40/3,AB/16 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO

04006335
SHEET CONVEYANCE DEVICE

PUB. NO.: 04-371435 [JP 4371435 A]
PUBLISHED: December 24, 1992 (19921224)
INVENTOR(s): FURUYAMA HIROYUKI
APPLICANT(s): TOKYO ELECTRIC CO LTD [000356] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 03-145918 [JP 91145918]
FILED: June 18, 1991 (19910618)
JOURNAL: Section: M, Section No. 1412, Vol. 17, No. 252, Pg. 123, May 19, 1993 (19930519)

ABSTRACT

PURPOSE: To simplify the structure of the sheet conveyance device by providing a movable support mechanism for movably supporting one of the sheet guides on the %sheet% conveyance path, and %positioning%/retaining this %sheet% guide by a elastically displaceable sensor terminal of the jam sensor.

CONSTITUTION: A sheet conveyance path 13 connecting to a rotary cutter 12 from a %printer% %section% 8 is formed by a pair of mutually opposed sheet guide plates 14, 15. A lower one 14 of the guide plates is fixedly provided

to a main frame while an upper one 15 thereof is provided, on its rear end portion, with a bearing portion 16 in a protruded manner, the bearing %portion% 16 being %rotatably% connected, by a rotating shaft 16, to a bearing portion 17 of a head frame 9. A jam sensor 19 is mounted to a front end portion of the head frame 9 and has a sensor terminal 20 which in turn presses the guide plate 15 elastically from above to position and retain it. Accordingly, when jamming occurs in the continuous sheet fed due to the rotation of a platen roller 11 whereby the sheet is curved, the guide plate 15 is displaced in corresponding relation to the amount of the sheet curved, so that a contact terminal 20 is forcedly pressed into the sensor 19. Thus, the jamming is sensed. Thus, the device structure is simplified and the device weight is reduced.

40/3,AB/17 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO

03368260
IMPELLER DEVICE FOR %PRINTER% SHEET DISCHARGE %SECTION%

PUB. NO.: 03-031160 [JP 3031160 A]
PUBLISHED: February 08, 1991 (19910208)
INVENTOR(s): KUMAZAWA KO
APPLICANT(s): TOSHIBA MACH CO LTD [000345] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-169348 [JP 89169348]
FILED: June 29, 1989 (19890629)
JOURNAL: Section: M, Section No. 1105, Vol. 15, No. 160, Pg. 153, April 22, 1991 (19910422)

ABSTRACT

PURPOSE: To prevent the interference between impellers and the %printing% paper at the portion where the chopper-folded %printing% paper passes by providing a rotating direction phase adjusting mechanism in the middle of a rotation transmitting passage to the rotary shaft of a rotary shaft driving mechanism, and providing a shift mechanism for %moving% %part% of impellers in the axial direction of the rotary shaft.
CONSTITUTION: When the %printing% paper discharged from the sheet discharge %section% of a %printer% is chopper-folded, at least part 48 of multiple impellers receiving the %printing% paper and conveying it to the preset position are moved in the axial direction of a rotary shaft 35 by the rotation of the cylinder 42 of a shift mechanism 40. The interference between impellers at the portion where the chopper-folded %printing% paper passes and the %printing% paper can be prevented. When the %printing% paper not chopper-folded is discharged, moved impellers are returned to the original %position%, and the %printing% %paper% is conveyed to the preset position via these impellers. The rotary shaft is rotated by a rotating direction phase adjusting mechanism by the preset angle to adjust the rotating direction phase of impellers.

40/3,AB/18 (Item 5 from file: 347)
DIALOG(R)File 347:JAPIO

03120779
GRAPHIC FORMING DEVICE

PUB. NO.: 02-096279 [JP 2096279 A]
PUBLISHED: April 09, 1990 (19900409)
INVENTOR(s): TAKESHIMA YASUE
KATAGIRI HIDEKI
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 63-248074 [JP 88248074]
FILED: September 30, 1988 (19880930)
JOURNAL: Section: P, Section No. 1070, Vol. 14, No. 303, Pg. 3, June 29, 1990 (19900629)

ABSTRACT

PURPOSE: To plot a graphic matching between a pattern already formed on the paper and a graphic to be formed by adding a paper surface recognizing part to apply the reading arithmetic/control to a pattern like a section, etc., recorded on the paper.

CONSTITUTION: A drive %part% 11 is previously %moved% and a paper surface recognizing %part% 9 is %moved% up to the position of the coordinates of an intersecting point between X and Y of the %section% %printed% on the %paper% 14. Then the %position% of the original point of an X-Y axis of the %print% is read and stored in a memory of a reading arithmetic/control part 2. Based on the recorded information, the information on the X-Y coordinate signal point of a graphic data part 4 is corrected. The points to be plotted of each pattern are all corrected by the corrected value of the X-Y axis, and the control signal is outputted from the part 2 to drive the part 11 via a plotting drive part 3. In this example, the correction of the original point of the X-Y axis is shown. Then the graphic forming device also can read and store the graphics already recorded on the paper.

40/3,AB/19 (Item 6 from file: 347)
DIALOG(R)File 347:JAPIO

01375588
%PRINTER%

PUB. NO.: 59-087188 [JP 59087188 A]
PUBLISHED: May 19, 1984 (19840519)
INVENTOR(s): KUREBAYASHI MASASHI
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP (Japan)
TORAY IND INC [000315] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 57-198064 [JP 82198064]
FILED: November 11, 1982 (19821111)
JOURNAL: Section: M, Section No. 324, Vol. 08, No. 197, Pg. 91, September 11, 1984 (19840911)

ABSTRACT

PURPOSE: To obtain a %printer% free of reduction of feeding speed when papers are changed and also of occurrence of paper jamming by a method in which a paper guide is provided in the %printing% portion of the paper feeding %section% of the %printer% and a paper suction means is provided to the paper guide.

CONSTITUTION: A paper 5 drawn out of a hopper passes on a paper bail base 14 and is fed through a tractor 7 and a guide 10 to a transfer charger 12, where a paper suction means is provided to the guide 4 including the %transfer% charger 12. When %papers% are charged, the %transfer% %portion% 18 is %moved% by a given distance toward the direction of a fixer introduction guide 9' from a photosensitive drum 1, and then the paper suction means is operated to closely adhere the paper 5 fed to the guide 10 to the surface of the guide 4 and the transfer charger 12. Therefore, the paper 5 can be smoothly fed and coupled with an upper tractor by the tractor 8.

40/3,AB/20 (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO

01172856
%PRINTER%

PUB. NO.: 58-110256 [JP 58110256 A]
PUBLISHED: June 30, 1983 (19830630)
INVENTOR(s): NAKAJIMA YUJI
SUZUKI NAOHISA
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 56-215473 [JP 81215473]
FILED: December 24, 1981 (19811224)
JOURNAL: Section: M, Section No. 244, Vol. 07, No. 215, Pg. 149, September 22, 1983 (19830922)

ABSTRACT

PURPOSE: To prevent the reduction of the speed of %printing% in case of bold %printing% by minutely %moving% only a type %element% and executing bold %printing%.

CONSTITUTION: A solenoid 15 is excited, and a %printing% hammer 8 is moved. When the %printing% hammer 8 is projected, the type element 5 is brought to a state that it can be turned naturally in the direction of rotation before the unevenness 8b of the head %section% 8a of the %printing% hammer and the unevenness 5a of the back of the type start fitting each other. The type %element% 5 is %rotated% only by .theta. through fitting operation, the hammer 8 pushes and hits the back of the type, and the ink of a type section is %transferred% to %sheets% of %paper% , thus preventing the reduction of the speed of %printing% in case of bold %printing%.

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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200353
(c) 2003 Thomson Derwent
File 347:JAPIO Oct 1976-2003/Apr(Updated 030804)
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File 344:Chinese Patents Abs Aug 1985-2003/Mar
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File 371:French Patents 1961-2002/BOPI 200209
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Set	Items	Description
S1	7	AU=(SHMAISER, A? OR SHMAISER A?)
S2	186	AU=(SAGI, D? OR SAGI D?)
S3	4	AU=(LEWINTZ, L? OR LEWINTZ L?)
S4	1	S1 AND S2
S5	1	S2 AND S3
S6	1	(S1 OR S2 OR S3) AND TANDEM(3N)PRINT????????
S7	3	(S1 OR S2 OR S3) AND (ROTATAB???????? OR ROTAT??????? OR MOVE??? OR MOVING OR MOVAB??????? OR TURN???????)(3N)ELEMENT? ?
S8	3	S7 NOT S6
S9	3	RD (unique items)
S10	3	(S1 OR S2 OR S3) AND (SUBSTRATE? ? OR PAPER? ? OR SHEET? ? OR DOCUMENT? ?)(3N)(POSITION?????? OR CORRECT?????? OR TRANSFER????? OR MOUNT??????? OR ALLIGN?????? OR PLACEMENT? ? OR EDGE? ? OR ANGULAR?? OR ANGLE??)
S11	3	RD (unique items)
S12	1	S10 NOT S7,S4

4/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013913490
WPI Acc No: 2001-397703/200142
Related WPI Acc No: 2001-389757
XRPX Acc No: N01-293132
Tandem printing system with fine paper-positioning correction which can print information using two or more printing stations and pulleys to provide corrective displacement
Patent Assignee: INDIGO NV (INDI-N)
Inventor: LEWINTZ L; **SAGI D**; **SHMAISER A**
Number of Countries: 090 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200134397	A1	20010517	WO 99IL600	A	19991107	200142	B
AU 200010729	A	20010606	WO 99IL600	A	19991107	200152	
			AU 200010729	A	19991107		

Priority Applications (No Type Date): WO 99IL600 A 19991107
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200134397	A1	E	24	B41F-021/12	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200010729	A		B41F-021/12	Based on patent WO 200134397

Abstract (Basic): WO 200134397 A1
Abstract (Basic):
NOVELTY - Printing stations (11,13) comprise impression rollers (12,14) and associated printing engines (16,18) with intermediate transfer members (15,17) onto which an image is transferred before being transferred onto paper (40). A roller assembly (20) inverts and transfers the paper between the impression rollers and a correctional mechanism (30) comprises a tension roller (38) pressing against a flexible strip (26) according to movement of a drive shaft (46) driven by a stepper motor (42) according to a signal from a paper sensor (24) determining of a correction is required.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a multiple-engine printer and for a method of applying fine positional correction to a substrate.
USE - Printing various information using two or more printing stations.
ADVANTAGE - Accurate alignment of paper.
DESCRIPTION OF DRAWING(S) - The drawing is a schematic illustration of the printer
Impression rollers (12,14)
Printing stations (11,13)
Printing engines (16,18)
Roller assembly (20)
Correction mechanism (30)
Tension roller (38)

pp; 24 DwgNo 1/2

9/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012702685
WPI Acc No: 1999-508796/199942
XRPX Acc No: N99-379143
Gripper mechanism for mounting sheet on drum in printing machine
Patent Assignee: INDIGO NV (INDI-N)
Inventor: BERNSTEIN A; DOUVDEVANI S; FEYGELMAN A; **SHMAISER A**
Number of Countries: 081 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9942290	A1	19990826	WO 98IL86	A	19980223	199942	B
AU 9862279	A	19990906	AU 9862279	A	19980223	200003	
			WO 98IL86	A	19980223		

Priority Applications (No Type Date): WO 98IL86 A 19980223
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9942290	A1	E	15	B41F-021/10	
AU 9862279	A			B41F-021/10	Based on patent WO 9942290

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

Abstract (Basic): WO 9942290 A1
Abstract (Basic):
NOVELTY - The gripper mechanism (10) for mounting a sheet (22) on a drum (20) in a printing machine, comprises a holding **element** (16) **movable** between a holding position at which the holding element secures the sheet to the drum and a release position at which the holding element does not secure the sheet. A magnetic holder (24,26) provides a relatively large force to hold the holding element (16) at the holding position and provides a relatively small force to urge the holding element to the holding position when it is removed from the holding position.
USE - For gripping sheets of paper for printing especially on multicolor printing machines and high speed presses.
ADVANTAGE - Has sufficient force to hold a sheet of paper on a drum but for which the force required to lift the grippers is reduced as the grippers are raised. Provides spring-less mechanism.
DESCRIPTION OF DRAWING(S) - The drawing shows a cross sectional view of the gripper in a holding position.
Gripper mechanism (10)
Holding element (16)
Drum (20)
Sheet (22)
Magnetic holder (24,26)
pp; 15 DwgNo 1A/2

9/3,AB/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004506439
WPI Acc No: 1986-009783/198602
XRPX Acc No: N86-007068
Slit-scanning - variable magnification electrographic slit scanning system
Patent Assignee: SAVIN CORP (SAVN); SPECTRUM SCI BV (SPEC-N)
Inventor: BERNHAUSER R J; FEHER P; LANDA B; SAGIV O; **SHMAISER A**
Number of Countries: 008 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2161288	A	19860108	GB 8511360	A	19850503	198602	B
DE 3523445	A	19860116	DE 3523445	A	19850629	198604	
FR 2567286	A	19860110				198609	
US 4629310	A	19861216	US 84628239	A	19840706	198701	
CA 1232936	A	19880216				198811	
CH 664634	A	19880315				198816	
GB 2161288	B	19880914				198837	
IT 1185003	B	19871028				199042	
JP 8082867	A	19960326	JP 85146868	A	19850705	199622	
			JP 9595824	A	19850705		

Priority Applications (No Type Date): US 84628239 A 19840706
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2161288	A		26		
JP 8082867	A		19	G03B-027/50	Div ex application JP 85146868

Abstract (Basic): GB 2161288 A

The apparatus employs full and half rate scanning mirrors, the full rate mirror being supported on a reciprocal carriage (28) which is attached at opposite ends to respective drive bands (100,102). The half rate mirrors are supported on a reciprocal carriage (36) having a pair of guide rails (72,74) and pulleys (142,146,148) in contact with one band (100) and further pulleys (144,150,152) in contact with the other band. The carriages are moved relatively (for magnification change) by lifting the pulleys from the guides.

A flywheel rotating at the desired scanning speed is coupled to the band/drive pulleys during the scanning stroke. Separate motors are provided for the photoconductive drum, flywheel, and acceleration and deceleration of drive pulleys. Mechanisms are provided for correcting misalignments between the ends of carriages and between the two carriages.

ADVANTAGE - Carriages relatively shifted simply by momentarily uncoupling half-rate carriage from drive band without having to shift any ground

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Abstract (Equivalent): GB 2161288 B

An optical scanning system including in combination a scanning element mounted for movement along a path, means for **moving** said scanning **element** along said path, a flywheel, means for driving said flywheel at a predetermined speed, and means for intermittently coupling said element to said flywheel.

Abstract (Equivalent): US 4629310 A

The system includes a scanning carriage reciprocated along a path by endless bands attached to the carriage at transversely spaced locations and driven purely by friction. Pulleys mounted on a sound scanning carriage at transversely spaced locations roll between the drive bands and stationary guides to move the second carriage at half the speed of the first carriage. The second carriage may be shifted relative to the first carriage by moving it to a location at which arms lift the pulleys from the guides.

A flywheel rotating at the desired scanning speed is coupled to the scanner drive train after the drive train has been smoothly accelerated to the desired scanning speed, and is uncoupled from the scanner drive train before the drive train is decelerated at the end of the scanning stroke. Misalignments between the separately driven ends of the first carriage are corrected by intercepting the carriage ends to induce differential slippage in the portions of the drive train coupled to the respective carriage ends. (25pp)e

9/3,AB/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004506438
WPI Acc No: 1986-009782/198602
XRPX Acc No: N86-007067
Variable-magnification electrophotographic copier - has follower engaging lamp projecting axially from pulley coupled to slit-forming members adjacent drum
Patent Assignee: SAVIN CORP (SAVN)
Inventor: FEHER P; LANDA B; **SHMAISER A**
Number of Countries: 007 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2161287	A	19860108	GB 8511359	A	19850503	198602	B
DE 3517964	A	19860116	DE 3517964	A	19850518	198604	
FR 2567278	A	19860110				198609	
US 4629308	A	19861216	US 84628233	A	19840706	198701	
CA 1228637	A	19871027				198747	
CH 665722	A	19880531				198824	
GB 2161287	B	19880713				198828	
IT 1183566	B	19871022				199040	

Priority Applications (No Type Date): US 84628233 A 19840706
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2161287	A		9		

Abstract (Basic): GB 2161287 A

Movement of the lens of a slit-scan copier having a photoconductive drum to change the magnification is coupled with adjustments of the width of the slit. Actuation of a stepper motor rotates a pulley to move a cable coupled to the lens pulling the lens to the desired position of a linear track.

A portion of the cable extends around a pulley having an axially projecting circumferentially extending ramp on one face. A follower engaging the ramp is coupled to slit-forming members adjacent to the drum so that movement of the cable to reposition the lens produces a concomitant adjustment of the width of the slit.

ADVANTAGE - Equalises exposure of photoconductor over continuous range of selected magnifications, mechanically simple.

5/5

Abstract (Equivalent): GB 2161287 B

Apparatus including in combination means forming an optical slit, a photosensitive member adapted to move past slit, means including a **movable** optical **element** for forming an optical image of an original on said member, means for **moving** said optical **element** to a position corresponding to a desired magnification selected from a substantially continuous range, a cam coupled to said optical element, a follower engaging said cam, and means controlled by said follower for adjusting the width of said slit.

Abstract (Equivalent): US 4629308 A

A lens mounted for movement on a linear track is coupled by a cable to the pulley of a stepper motor which is actuated to move the lens to the desired position along the track. A portion of the cable extends

around a pulley having an axially projecting circumferentially extending ramp on one face.

A follower engaging the ramp is coupled to slit-forming members adjacent to the photoconductor so that movement of the cable to reposition the lens produces a concomitant adjustment of the width of the slit to equalise exposure of the photoconductor over a continuous range of selected magnifications. (8pp)i

12/3,AB/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014164680
WPI Acc No: 2001-648908/200174
XRPX Acc No: N01-484891
Sheet transport system
Patent Assignee: INDIGO NV (INDI-N)
Inventor: **SHMAISER A**; ZARFATY Y
Number of Countries: 093 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200179096	A1	20011025	WO 2000IL231	A	20000418	200174	B
AU 200039861	A	20011030	AU 200039861	A	20000418	200219	
			WO 2000IL231	A	20000418		
EP 1274637	A1	20030115	EP 2000919118	A	20000418	200306	
			WO 2000IL231	A	20000418		

Priority Applications (No Type Date): WO 2000IL231 A 20000418
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200179096	A1	E	23	B65H-007/02	
AU 200039861	A			B65H-007/02	Based on patent WO 200179096
EP 1274637	A1	E		B65H-007/02	Based on patent WO 200179096

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Abstract (Basic): WO 200179096 A1
Abstract (Basic):
NOVELTY - The sheet transport system (20) includes a sheet transporter (30-36) that receives and hands off a sheet being transported by the system so as to transport the **sheet** from a first **position** to a second **position**. The **sheet** transporter comprises an orifice (44) through which air is aspirated to create a vacuum that grips a sheet when it is received by the transporter, a vacuum system coupled to the orifice controllable to aspirate air through the orifice to grip the sheet, a vacuum sensor (60) that generates signals responsive to magnitude of vacuum of the orifice, and a controller that receives the signals generated by the vacuum sensor and provides a signal indicative of a location of the sheet in the transport system from the signals.
USE - For monitoring **position** of **sheet** in transport system.
ADVANTAGE - Detects when a sheet jams in the system.
DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the sheet transport system.
sheet transport system (20)
transporter (30-36)
orifice (44)
vacuum sensor (60)